Accessibility Review

Assessment report

Summary

Objectives

This report documents a comprehensive review of the schematic design documentation with consideration to all aspects of accessibility to the site and throughout the development with reference to the Building Code of Australia 2016 (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).

Methods and Results

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.

We consider this is achievable in the design of the Chak Chau Wing museum.

Conclusions

The proposed development is capable of achieving a high level of access for people with disabilities and meeting all the relevant standards.

Recommendations

We recommend the following be addressed during subsequent design stages to achieve compliance

- Ensure door circulation areas are in accordance with AS1428.1 (2009).
- Ensure ambulant toilet cubicles are 900-920mm wide.
- Provide an accessible shower complying with AS1428.1 (2009).
- Other items as outlined in this report that require further development during detailed design stages.

Contents

1. Objectives of assessment

This report documents a comprehensive review of the schematic design documentation with consideration to all aspects of accessibility to the site and throughout the development with reference to the Building Code of Australia 2016 (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 Reviewed Documentation

This report is based upon the following schematic design documents produced by Johnson Pilton Walker (JPW):

Document No.	Title	Revision
JPW-SD-A-0000	Cover Sheet	01
JPW-SD-A-0050	Precinct Plan	01
JPW-SD-A-0500	Site Plan	01
JPW-SD-A-1001	Lower Level 2	01
JPW-SD-A-1003	Lower Level 1	00
JPW-SD-A-1005	Lower Ground Level	01
JPW-SD-A-1006	Ground Level	01
JPW-SD-A-1007	Upper Level	01
JPW-SD-A-1008	Plant Level	01
JPW-SD-A-1009	Roof Plan	01
JPW-SD-A-1101	Reflected Ceiling Plan Lower Level 2	01
JPW-SD-A-1103	Reflected Ceiling Plan Lower Level 1	01
JPW-SD-A-1106	Reflected Ceiling Plan Ground Level	01
JPW-SD-A-1107	Reflected Ceiling Plan Upper Level	01
JPW-SD-A-2000	Elevation – South	01
JPW-SD-A-2001	Elevation – West	01
JPW-SD-A-2002	Elevation – North	01
JPW-SD-A-2003	Elevation – East	01

Document No.	Title	Revision
JPW-SD-A-3000	Section North 01-1	01
JPW-SD-A-3001	Section North 01-2	01
JPW-SD-A-3002	Section North 02-2	01
JPW-SD-A-3003	Section North 02-2	01
JPW-SD-A-3004	Section North 03	01
JPW-SD-A-3010	Elevation South 01	01
JPW-SD-A-3020	Elevation West 01	01
JPW-SD-A-3021	Elevation West 02	01
JPW-SD-A-3022	Elevation West 03	01
JPW-SD-A-9005	Materials Schedule	01
JPW-SD-L-0500	Landscape Plan	01
JPW-SD-L-0503	Demolition Plan	01

2. Site and Project Descriptions

2.1 The Site and Surrounds

The development site is located to the northeast of the University's grounds adjacent to the Parramatta Rd entrance, within the area currently used as the Fisher Tennis Courts site.

Parramatta Rd runs in an approximate east to west alignment and borders the site to the north. University Place that runs in a north south direction is located to the west, beyond which is the University's main Quadrangle Building. University Avenue borders the site to the south, with Victoria Park located beyond the University grounds to the east.

The main portion of the site consists of three tennis courts, to the north of which is a small weatherboard tennis pavilion building. An area of lawn is located to the east of the site.

The northern boundary between the University campus and Parramatta Rd features a retaining wall above which is a linear garden bed containing significant trees. Ground conditions of the area consist of a sloped garden bed.

The development site is bound on all sides by trees of varying significance.

Figure xx: Aerial view of site

2.2 The Project

The proposal comprises the construction of the new Chau Chak Wing Museum in the north eastern sector of the Camperdown campus. The proposed museum will comprise a new five level building (maximum of three storeys above ground) with central void and will include:

- Entry foyer and museum shop
- Gallery space

- CERC (Collections Education Research & Conservation Facility) space
- Collection storage and workshop areas
- Staff offices, facilities and boardroom
- Study rooms and schools education area
- A 130 seat Auditorium
- Café and terrace facilities
- Loading dock
- Plant rooms

The proposed works also include associated earthworks, tree removal, landscape works and augmentation to existing infrastructure and services.

3. Site analysis

The site slopes longitudinally from the western boundary along University Avenue to the eastern boundary along University Place. Entry to the project site is provided from University Place and a forecourt area adjoins the pedestrian footpath providing level access to the building entry.

As such, an accessible path of travel is provided from the allotment boundary at the main point of pedestrian entrance to the site, satisfying legislative requirements.

4. Regulatory context

The overall objective of accessibility legislation is to provide a standardised environment which is inclusive of all members of society. Disability discrimination happens when people with a disability are treated less fairly than people without a disability. Disability discrimination also occurs when people are treated less fairly because they are relatives, friends, carers, co-workers or associates of a person with a disability.

4.1 National Construction Code /Building Code of Australia

The National Construction Code (NCC) comprises the Building Code of Australia (BCA) and the Plumbing Code of Australia (PCA). NCC is all encompassing and contains Volumes One, Two and Three; The Guide; and the Consolidated Performance Requirements. Detailed of these are as follows:

- Volume One contains the requirements for Class 2 to 9 (multi-residential, commercial, industrial and public) buildings and structures (BCA).
- Volume Two contains the requirements for Class 1 (residential) and Class 10 (non-habitable) buildings and structures.
- Volume Three contains the requirements for plumbing and drainage for all classes of buildings.
- The Guide is a companion manual to Volume One. The Guide provides clarification, illustration and examples for complex NCC provisions.

The primary classification for the proposed buildings pursuant to the BCA is a Class 9b, being a museum. Area such as storage area may be classified differently as per the following table.

Level	Proposed Use	BCA Classification
Lower Level 2	Plant / Loading Dock	TBC
Lower Level 1	Gallery	Class 9b
Lower Ground Level	Gallery	Class 9b
Lower Ground Level	Cafe	Class 6
Ground Level	Gallery & Auditorium	Class 9b
Upper Level	Gallery	Class 9b
Upper Level	Offices	Class 5
Plant Level	Plant	TBC

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:

BCA Classification	Access Requirements
Class 5	To and within all areas normally used by the occupants
Class 6	To and within all areas normally used by the occupants
Class 9b – assembly building	To wheelchair seating spaces provided in accordance with Part D3.9 To and within all other areas normally used by the occupants, except that access need not be provided to tiers or platforms of seating areas that do not contain wheelchair seating spaces

4.2 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 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.

4.3 Access to Premises Standards 2010

The Disability (Access to Premises) Standards 2010 forms a part of the DDA and were introduced to minimise to provide clarity for designers, property developers, building owner and building certifiers to meet their obligations under the DDA. In contrast to building regulations, the DDA is not prescriptive. The implementation of the Premises Standards in 2010, and corresponding changes to the BCA, was 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.

5. Methods and results

5.1 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.

5.2 University of Sydney (UoS) Accessibility Requirements

The University of Sydney Campus Infrastructure & Services (CIS) Design Standards – DDA and Access is applicable to this project. This document sets out the University's requirements for the design, construction and maintenance to meet the physical requirements for an accessible campus for persons with disabilities.

The object of the standard is to ensure that built environments within the University have no barriers and cater for all persons so that in effect disability is not an issue.

For each project within the University, an Access Strategy Plan is to be prepared for approval by CIS. This plan is to identify the important features of the physical access (path of travel POT) plus the proposed management for staff and students with disabilities and their accommodation of their needs and plan of action for the addressing of unforeseen barriers to study or work. The POT needs to identify the route from the entry of the building through to the subject space.

A separate Accessibility Plan is required for each project – drawings that clearly indicate the project features of accessibility are to be provided. At a minimum this shall include site logistics plan, site plan and floor plans for each level. We note that the marked plans contained in Appendix A of this report provide information of this nature.

5.3 Results

The design of the Chau Chak Wing Museum is at a point where the inherent philosophies of accessibility legislation have been checked and development consent can be sought. The finer details with respect to code compliance can be finalised prior to the issue of a Construction Certificate.

The proposed development is considered capable of achieving a high level of access for people with disabilities and meeting all the relevant standards.

6. Assessment – UoS CIS DDA / Access Standard

The Campus Infrastructure and Services (CIS) Design Standard – DDA and Access – sets out the University's requirements for the design, construction and maintenance to meet the physical requirements for an accessible campus for persons with disabilities. The object of this standard is to ensure the built environments for the University have no barriers and cater for all persons so that in effect disability is not an issue. The following is required in the design of the Chau Chak Wing Museum.

6.1 Stairs and Nosings

Stair finishes to be one of four types of finishes – stone (sandstone or trachyte), quarry tile, vinyl or carpet; with Latham Asbra ST Series Surface Mounted for existing stairs, S Series Recessed flush with the finish or Asbrabronze solid brass. Carpet should only be used in low traffic areas.

We recommend that this be addressed during detailed design stages.

6.2 Tactile Installations for Stairs, Ramps, Signage, External Wayfinding and Kerb Crossings

Tactile installations need to have 30% colour contrast. Where stainless steel tactiles are used in concrete or granite surfaces these need to have a black colour insert.

Note: compliance with this requirement may not offer compliance with BCA. AS1428.4.1 requires the following for tactile indicators:

- where integrated TGSI are used – 30% to the background colour;
- where discrete TGSI are used – 45% to the background colour;
- where discrete TGSI have two colours or materials – 60% to the background colour.

We recommend that this be addressed during detailed design stages. We recommend compliance with BCA in this instance.

6.3 Lift Installations

Lifts to be minimum 1,600mm by 1,400mm car dimension. Lift car to be controls with raised number and Braille floor buttons and floor lift buttons. All lifts to be fitted with audio announcement irrespective of the number of floors travelled.

We recommend that this be addressed during detailed design stages, noting that the overall size of the lift shaft

6.4 Toilets – enhanced with auto doors

Unisex toilets are to be best practice design. One unisex accessible toilet in each building is to be provided with an auto sliding or swing door. All accessible toilets are to be provided with a duress button to the University Security and a shelf for a bag or A4 size notebook.

Inclusions for all accessible toilets:

- Sensor or flick mixer tap.
- Automatic electric hand dryer.
- Duress alarm button to CIS Security Control Room and strobe light: refer to University Security design Standard.

We recommend that this be addressed during detailed design stages.

6.5 Ramps

All ramps are to be provided with glass balustrade, steel balustrade and sandstone or painted steel balusters. Provide a lighting detail with an under mount fluorescent light at handrail level to direct light on to paved surface of the ramp. Lighting to be recessed LED or equal with balustrade mounted reflector or wall mounted brick light or similar.

Not applicable – currently no ramps provided within proposed works.

6.6 Lecture Theatre Seating for Wheelchairs

Provide locations for wheelchair users and their carer in each lecture space as per table below:

Size of lecture theatre	No of double width spaces	Location
50	1	Front
100	2	Front
200	4	Front and back
300	6	Front and back
Plus 300	8	Front and back

Note: compliance with this requirement may not offer compliance with BCA which requires the provision for three (3) wheelchair seating spaces for up to 150 spaces.

Not applicable to this project. Seating within the auditorium is not fixed thereby maximising flexibility in the provision of wheelchair seating spaces.

6.7 Lectern Design

To cater for persons with wheelchairs. Lecterns must be height adjustable or have suitable designed lectern with side mounted desk for laptop or notes. Lecterns are to be provided with an electric operated height adjustable tablet for presentation notes or laptops. 1060mm wide by 570mm deep height adjustable 800 to 1020mm.

We recommend that this be addressed during detailed design stages.

6.8 Lab Benches and Fume Cupboards

Size/type of laboratory	Capacity	Provision
Teaching	24	5% adjustable bench and services, 1 fume cupboard.
Teaching	48	5% adjustable height bench and services, 1 fume cupboard.
Anatomy		5% adjustable benches.
Research		Determined on requirement.

Not applicable to this project.

6.9 Reception Counters

Provide reception counter at 700mm height for a 1/3 length with leg space underneath. Provide fully adjustable workstations for each reception staff position. Refer to Figure 5.10 and 5.11 for example designs.

Note: These dimensions are not in keeping with AS1428.2 (1992) which requires a height of 850mm from the finished floor (with 820mm clearance under for a width of 900mm) where a single counter is provided.

We recommend that this be addressed during detailed design stages.

6.10 Offices and Workstations

Element	Description	Number or percentage
Workstation	Adjustment=adjustable facility requires technician. Fixed.	100% adjustment facility 5% adjustable
	Adjustable=can be adjusted by winder mechanism.	
Task chairs	Adjustable without arms	100%
Desks	Adjustment=adjustable facility requires technician. Fixed.	100%
Meeting tables	700mm high 30mm thick surface.	

We recommend that this be addressed during detailed design stages.

6.11 Door Arrangements

Door type	Description	Minimum Width
Main entry	Auto sliding glass with contrasting edge stripping and visual strip. Where airlock is included the distance between doors to be at least 3 metres.	1800mm clear. Refer to 'Circulation space at doorways on a continuous path of travel' in AS 1428 Part 1 and 2. Refer to 'Clear opening of doorways' in AS1428 Part 1 and 2.
Secondary or secure entry with swipe card access in public area	Auto sliding glass with contrasting edge strip and visual strip	1000mm clear. Refer to 'Circulation space at doorways on a continuous path of travel' in AS 1428 Part 1 and 2. Refer to 'Clear opening of doorways' in AS1428 Part 1 and 2.
Secondary or secure entry with swipe card access	Swing door fully glazed aluminium framed with closer.	900mm clear. Refer to 'Circulation space at doorways on a continuous path of travel' in AS 1428 Part 1 and 2. Refer to 'Clear opening of doorways' in AS1428 Part 1 and 2.

Meeting room	Swing door	900mm clear. Refer to 'Circulation space at doorways on a continuous path of travel' in AS 1428 Part 1 and 2. Refer to 'Clear opening of doorways' in AS1428 Part 1 and 2.
Office	Swing door	900mm clear. Refer to 'Circulation space at doorways on a continuous

Door type	Description	Minimum Width
		path of travel' in AS 1428 Part 1 and 2. Refer to 'Clear opening of doorways' in AS1428 Part 1 and 2.

Door leaf sizes are not available at this point of the design process. We note that circulation areas are generally provided in accordance with AS1428.1 (2009). We recommend that door leaf sizes be addressed during detailed design stages.

6.12 Car Spaces

Car parking spaces for persons with disabilities should be as close as possible to main entries and within 100m, on grade and generally level marked by signage on the pavement and vertical sign.

Not applicable to this project.

6.13 Student Accommodation

Accessible rooms to be provided as per table provided.

Not applicable to this project.

6.14 Hearing Loop

All lecture theatres and other teaching spaces with audio-visual facilities are to be provided with hearing augmentation. The University utilises an infra – red system. Persons using the system need to be notified and if required to either Student Services or their Staff Accessibility Manager to obtain a receiver. Refer to AS 1428 Part 4 for the specific requirement.

Facility	Requirement	Percentage
All teaching and learning spaces with audio visual facilities	Provide hearing loop. Refer to ICT Audio Visual Design Guidelines.	100%
Signage	Provide signage notifying users of the hearing loop in braille and tactile. AS1428.5	

Note: There is an incorrect reference to AS1428 Part 4 – reference should be made to AS1428.5: Communication for people who are deaf or hearing impaired. Further, we note that for a hearing loop, it is not possible to achieve 100% coverage due to the hearing loop not being able to receive signals within 500mm – BCA required 80% coverage for this reason.

We recommend that this be addressed during detailed design stages.

6.15 Internal and External Signage

Facility	Requirement	Percentage
Campus and grounds	External Signage Manual	100%
Buildings	External and Internal Signage Manuals.	100%
Internal Fitouts	Internal Signage Manual.	100%

We recommend that this be addressed during detailed design stages.

7. Assessment – Building Code of Australia

The Building Code of Australia (BCA) contains accessibility requirements for both the approach to the building from the allotment boundaries and within the building to enable all pedestrians to approach and enter the building. Internally, the BCA requires access to and within all areas. BCA and the requirements of the Disability (Access to Premises) Standard – Access Code for Buildings are similar and represent minimum accessibility standards.

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

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

Drawings indicate that a formed footpath with areas conducive to an accessible path of travel has been provided from the allotment boundary along the east side of the site to the building entrance – refer to Appendix 2 for compliance requirements regarding pathways, ramps and walkways.

7.2 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.

Not applicable to this development.

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

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

The forecourt area adjoins the University's pedestrian footpath network. Existing links to other buildings will be maintained for access to the Chak Chau Wing Museum.

7.4 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:

Not applicable to this development.

7.5 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.

Automatic opening doors are provided for entry to the building and appear to be capable of compliance. The use of this type of doorway is encouraged as it maximises accessibility and is in keeping with Universal Design principles - refer to Appendix 2 for additional compliance requirements.

7.6 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.

7.7 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.

We recommend that the abovementioned items be addressed during subsequent design stages.

7.8 Internal Doors – Circulation Areas

Doors and doorways to be provided with circulation clearances as per AS 1428.1 (2009). For compliance with AS1428.1 (20009), an unobstructed door opening of 850mm is required.

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.

Note: The CIS DDA / Access Standard has additional requirements for doorway that need to be addressed.

Doorways within the accessible path of travel are generally provided with adequate circulation areas to achieve compliance. For additional compliance requirements, refer to Appendix 2.

7.9 Internal Doors – Operational Forces

Door operating forces to manual doors to meet the requirements of AS 1428.1 (2009), Clause 13.5.2 (e). Ensure any door closers selected (and when installed) will meet the requirements for operating forces, that is:

- 20N to initially open the door;
- 20N to swing the door; and
- 20N to hold the door open between 60 and 90°.

We recommend that the abovementioned items be addressed during subsequent design stages.

7.10 Exemptions (BCA Part D3.4)

Where full access is unachievable due to the functions of the space, there may be opportunity to access 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).

7.11 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.

We recommend that the abovementioned items be addressed during subsequent design stages.

7.12 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.

We assume hearing augmentation will be provided within the auditorium and school education areas and recommend that the abovementioned items be addressed during subsequent design stages.

7.13 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 to stairs within the building and forecourt areas. Refer to Appendix 2 for installation requirements.

7.14 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).

Loose seating is provided within the auditorium. This maximises flexibility in the provision of wheelchair seating spaces.

7.15 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).

We recommend that the abovementioned items be addressed during subsequent design stages – refer to Appendix 2 for compliance requirements.

7.16 Slip Resistance (BCA Part D2.14)

The following slip resistance values, per Table 2.14, are applicable for BCA compliance:

Application	Surface Condition	
	Wet	Dry
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
Ramp steeper than 1:20 but not steeper than 1:14	P3 or R10	P4 or R11
Nosing or landing edge strip	P3	P4

We recommend that the abovementioned items be addressed during subsequent design stages.

7.17 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
(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

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

(d) in a Class 9b building used as an entertainment venue, the door sill of a doorway opening on a road, open space, external stair landing or external balcony is not more than 50mm above the finished floor level to which the doorway opens; or

(e) 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.

We recommend that the abovementioned items be addressed during subsequent design stages – compliance is considered achievable.

7.18 Passenger Lifts (BCA Part E3)

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

Lift dimensions

- Lift floor dimensions of not less than 1100mm X 14000mm 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.

We recommend that the abovementioned items be addressed during subsequent design stages – refer to Appendix 2 for compliance requirements.

The area proposed for the lift offers a floor area conducive to compliance.

7.19 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. 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 and 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.

There are currently no ramps proposed within the building or forecourt areas.

7.20 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, tactile indicators and set-backs from the property boundary / internal corridors as appropriate.

Further to this 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.

We recommend that the abovementioned items be addressed during subsequent design stages. – refer to Appendix 2 for compliance requirements.

7.21 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).

As per BCA Clause D2.17 (vi), handrails within the fire isolated stairways are required to comply with Clause 12 of AS 1428.1 (2009). The height of handrails is to be between 865-1000mm and be consistent along the length of the stair.

We recommend that the abovementioned items be addressed during subsequent design stages – refer to Appendix 2 for additional compliance requirements. We note the provision of a staggered stair to accommodate handrail requirements.

7.22 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). For a Class 9b building such as this, where Part F2.3 of the *BCA* requires closet pans, the following is required:

- 1 on every *storey* containing *sanitary compartments*; and
- 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.

A unisex accessible shower is provided at each level of the building where sanitary facilities are provided meeting BCA requirements. General arrangement of fixtures and room size appears to be capable of compliance – refer to Appendix 2 for compliance requirements.

7.23 Unisex Accessible Showers (BCA Part F2)

Accessible unisex showers must be provided in accordance with Table F2.4(b).). For a Class 9b building such as this, where Part F2.3 of the *BCA* requires showers, the following is required:

- not less than 1 for every 10 showers or part thereof.

A shower is provided for staff use within the staff room area at the Upper Level. As such, a unisex accessible shower should be provided – refer to Appendix 2 for compliance requirements.

.

7.24 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 provided for gender specific use at each bank of sanitary facilities. We note that the width of these cubicles is to be 900-920mm (currently not documented as such) – refer to Appendix 2 for compliance requirements.

8. Best Practice Recommendations

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 3 for specific requirements.

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

9. Conclusions and Recommendations

We have reviewed the architectural documentation available to date and have reviewed the proposed building works with respect to the Building Code of Australia 2016 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 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.

We recommend the following be addressed during subsequent design stages to achieve compliance

- Ensure door circulation areas are in accordance with AS1428.1 (2009).
- Ensure ambulant toilet cubicles are 900-920mm wide.
- Provide an accessible shower complying with AS1428.1 (2009).

Appendix 1 – Marked Plans

Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 03/04/17

LEGEND

- Mandatory requirements under the BCA and Premises Standards that DO NOT ACHIEVE COMPLIANCE - ACTION REQUIRED.
- 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.
- Mandatory requirements under the BCA and Premises Standards. COMMENT FOR INFORMATION PURPOSES - COMPLIANCE CONSIDERED ACHIEVABLE.
- 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.
- Identification of areas considered as exempt areas under BCA D3.4.
- Accessible Building entrance

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00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

Legend

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ARUP
10/102 Kent St
Sydney NSW 2000
02 9320 9320

Building Services
ARUP
10/102 Kent St
Sydney NSW 2000
02 9320 9320

Fire Engineering
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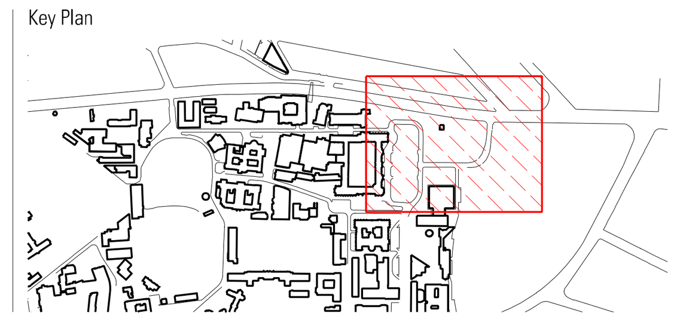
02 9412 2322

BCA
Group DLA
Level 3, No 10 Bridge St
Sydney NSW 2000
02 8355 316

Key Plan



Scale / North Point
1:500 @ A1, 1:1000 @ A3 0 5 10 15 25m

General Notes
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Project Title
UNIVERSITY OF SYDNEY
CHAU CHAK WING MUSEUM

Client
The University of Sydney
Sydney
NSW
2006

Drawing Title
PRECINCT PLAN

Project Number
15037

Documentation Stage
SD

Drawing Number
JPW-SD-A-0050

Revision
01

$FILE$ $DATE$ $TIME$

Rev	App	Ckd	Revision or reason for issue	Date
00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

Legend

Structural & Civil
ARUP
10/102 Kent St
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02 9320 9320

Building Services
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02 9320 9320

Fire Engineering
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Key Plan

Scale / North Point
1:200 @ A1, 1:400 @ A3
0 2 4 6 10m

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UNIVERSITY OF SYDNEY
CHAU CHAK WING MUSEUM

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Drawing Title
SITE PLAN

Project Number
15037

Documentation Stage
SD

Drawing Number
JPW-SD-A-0500

Revision
01

$FILE$
$DATE$
$TIME$

Access Consulting
PHILIP CHUN
Building Compliance
Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 03/04/17

Rev	App	Ckd	Revision or reason for issue	Date
00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

Legend

Structural & Civil: ARUP, 10/102 Kent St, Sydney NSW 2000, 02 9320 9320
Building Services: ARUP, 10/102 Kent St, Sydney NSW 2000, 02 9320 9320
Fire Engineering: ARUP, 10/102 Kent St, Sydney NSW 2000, 02 9320 9320
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Key Plan

Scale / North Point: 1:100 @ A1, 1:200 @ A3

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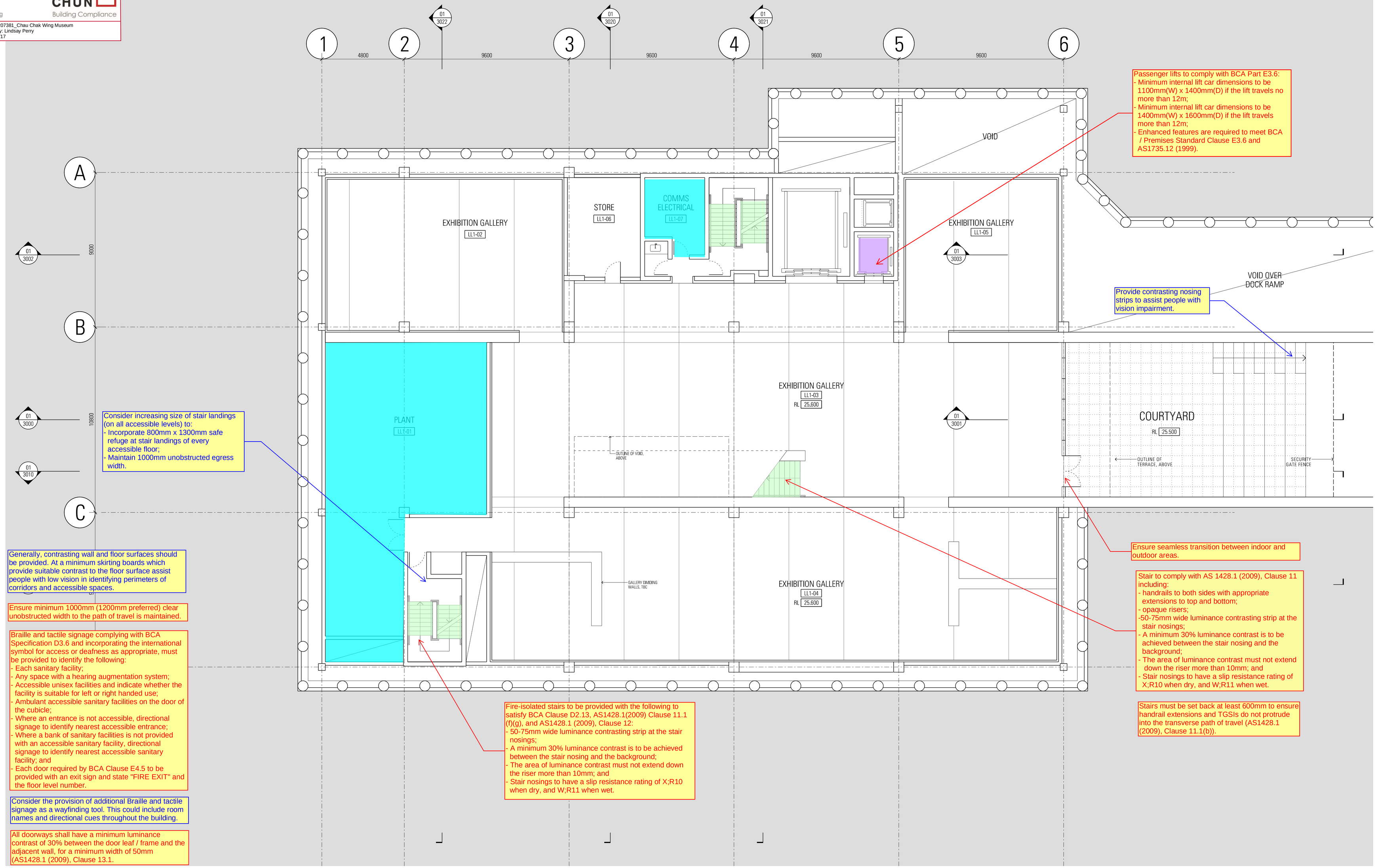
Project Title: UNIVERSITY OF SYDNEY CHAU CHAK WING MUSEUM
Client: The University of Sydney, Sydney, NSW, 2006

Drawing Title: GENERAL ARRANGEMENT PLAN LOWER LEVEL 2
Project Number: 15037
Documentation Stage: SD
Drawing Number: JPW-SD-A-1001
Revision: 01

Access Consulting

PHILIP CHUN Building Compliance

Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 03/04/17



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00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Coordination Issue	31/03/2017

Legend

JPW-SD-A-1003.dgn
31/03/2017
1:100

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ARUP
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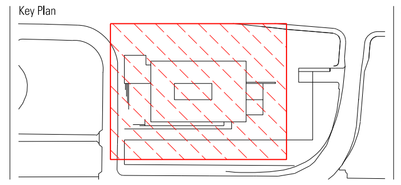
Key Plan



Scale / North Point

1:100 @ A1, 1:200 @ A3

0 1 2 3 5m

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CHAU CHAK WING MUSEUM

Client
The University of Sydney
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2006

Drawing Title
GENERAL ARRANGEMENT PLAN
LOWER LEVEL 1

Project Number
15037

Documentation Stage
SD

Drawing Number
JPW-SD-A-1003

Revision
00

Access Consulting

PHILIP CHUN Building Compliance

Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 03/04/17

Ambulant cubicles appear to be capable of compliance with AS1428.1 (2009).
Ensure a cubicle width of 900-920mm is provided (currently 1100mm).

Unisex accessible sanitary compartment appears to be capable of compliance with AS1428.1 (2009).
Ensure 800mm from rear wall to front of pan is achieved.

Note:
CIS DDA / Access Standard requires auto doors to accessible toilet.

All 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.

Ensure seamless transition between indoor and outdoor areas.

Consider providing a proportion of seats to comply with AS 1428.2 (1992) Clause 27.2.

That is, 400-450mm in height, with armrests at 220-300mm above the seat and backrest extending to a height of 750-790mm.

Consider increasing size of stair landings (on all accessible levels) to:
- Incorporate 800mm x 1300mm safe refuge at stair landings of every accessible floor;
- Maintain 1000mm unobstructed egress width.

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.

Ensure minimum 1000mm (1200mm preferred) clear unobstructed width to the path of travel is maintained.

Braille and tactile signage complying with BCA Specification D3.6 and incorporating the international symbol for access or deafness as appropriate, must be provided to identify the following:
- 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; and
- Each door required by BCA Clause E4.5 to be provided with an exit sign and state "FIRE EXIT" and the floor level number.

Consider the provision of additional Braille and tactile signage as a wayfinding tool. This could include room names and directional cues throughout the building.

All doorways shall have a minimum luminance contrast of 30% between the door leaf / frame and the adjacent wall, for a minimum width of 50mm (AS1428.1 (2009), Clause 13.1.

Stair to comply with AS 1428.1 (2009), Clause 11 including:
- handrails to both sides with appropriate extensions to top and bottom;
- opaque risers;
-50-75mm wide luminance contrasting strip at the stair nosings;
- A minimum 30% luminance contrast is to be achieved between the stair nosing and the background;
- The area of luminance contrast must not extend down the riser more than 10mm; and
- Stair nosings to have a slip resistance rating of X;R10 when dry, and W;R11 when wet.

Stairs must be set back at least 600mm to ensure handrail extensions and TGSIs do not protrude into the transverse path of travel (AS1428.1 (2009), Clause 11.1(b)).

Fire-isolated stairs to be provided with the following to satisfy BCA Clause D2.13, AS1428.1(2009) Clause 11.1 (f)(g), and AS1428.1 (2009), Clause 12:
- 50-75mm wide luminance contrasting strip at the stair nosings;
- A minimum 30% luminance contrast is to be achieved between the stair nosing and the background;
- The area of luminance contrast must not extend down the riser more than 10mm; and
- Stair nosings to have a slip resistance rating of X;R10 when dry, and W;R11 when wet.

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00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

Legend

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BCA
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Sydney NSW 2000
02 8355 316

Key Plan

Scale / North Point
1:100 @ A1, 1:200 @ A3
0 1 2 3 5m

General Notes
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Project Title
UNIVERSITY OF SYDNEY
CHAU CHAK WING MUSEUM

Client
The University of Sydney
Sydney
NSW
2006

Drawing Title
GENERAL ARRANGEMENT PLAN
LOWER GROUND LEVEL

Project Number: 15037
Documentation Stage: SD
Drawing Number: JPW-SD-A-1005
Revision: 01

PHILIP CHUN
Access Consulting
Building Compliance

Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 03/04/17

Ambulant cubicles appear to be capable of compliance with AS1428.1 (2009). Ensure a cubicle width of 900-920mm is provided. 100mm currently shown.

Unisex accessible sanitary compartment appears to be capable of compliance with AS1428.1 (2009). Ensure 800mm from rear wall to front of pan is achieved.

Confirmation required regarding the use of this room. Currently, it does not facilitate wheelchair access.

Note:
CIS DDA / Access Standard requires auto doors to accessible toilet.

Passenger lifts to comply with BCA Part E3.6:
- Minimum internal lift car dimensions to be 1100mm(W) x 1400mm(D) if the lift travels no more than 12m;
- Minimum internal lift car dimensions to be 1400mm(W) x 1600mm(D) if the lift travels more than 12m;
- Enhanced features are required to meet BCA / Premises Standard Clause E3.6 and AS1735.12 (1999).

All 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.

Where an inbuilt amplification system is installed in any room within a Class 9b building (other than one used for emergency purposes only), a hearing augmentation system per BCA Clause D3.7 must be provided.

We have been advised that loose seating is proposed within the auditorium. This maximises wheelchair seating options.

Stair to comply with AS 1428.1 (2009), Clause 11.

Stair to comply with AS 1428.1 (2009), Clause 11 including:
- handrails to both sides with appropriate extensions to top and bottom;
- opaque risers;
-50-75mm wide luminance contrasting strip at the stair nosings;
- A minimum 30% luminance contrast is to be achieved between the stair nosing and the background;
- The area of luminance contrast must not extend down the riser more than 10mm; and
- Stair nosings to have a slip resistance rating of X;R10 when dry, and W;R11 when wet.

Stairs must be set back at least 600mm to ensure handrail extensions and TGSIs do not protrude into the transverse path of travel (AS1428.1 (2009), Clause 11.1(b)).

Consider providing an accessible lower section of counter between a height of 830mm and 870mm, with a minimum width of 900mm to cater for wheelchair access and minimise the risk of a complaint made under the DDA.

Consider providing way-finding cues to assist people with vision impairment navigate through the forecourt area.

Stair to comply with AS 1428.1 (2009), Clause 11.

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.

Ensure minimum 1000mm (1200mm preferred) clear unobstructed width to the path of travel is maintained.

Braille and tactile signage complying with BCA Specification D3.6 and incorporating the international symbol for access or deafness as appropriate, must be provided to identify the following:
- 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; and
- Each door required by BCA Clause E4.5 to be provided with an exit sign and state "FIRE EXIT" and the floor level number.

Consider the provision of additional Braille and tactile signage as a wayfinding tool. This could include room names and directional cues throughout the building.

All doorways shall have a minimum luminance contrast of 30% between the door leaf / frame and the adjacent wall, for a minimum width of 50mm (AS1428.1 (2009), Clause 13.1.

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Rev	App	Ckd	Revision or reason for issue	Date
00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

Legend

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Sydney NSW 2000
02 8355 316

Key Plan

Scale / North Point
1:100 @ A1, 1:200 @ A3
0 1 2 3 5m

General Notes
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Project Title
UNIVERSITY OF SYDNEY
CHAU CHAK WING MUSEUM

Client
The University of Sydney
Sydney
NSW
2006

Drawing Title
GENERAL ARRANGEMENT PLAN
GROUND LEVEL

Project Number 15037
Documentation Stage SD
Drawing Number JPW-SD-A-1006
Revision 01

Access Consulting

PHILIP CHUN Building Compliance

Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 21/03/17

Ref:
Reviewed by: Lindsay Perry
Date: 03/04/17

Ambulant cubicles appear to be capable of compliance with AS1428.1 (2009).
Ensure a cubicle width of 900-920mm is provided.

Unisex accessible sanitary compartment appears to be capable of compliance with AS1428.1 (2009).
Ensure 800mm from rear wall to front of pan is achieved.
An accessible shower will be required.

Note:
CIS DDA / Access Standard requires auto doors to accessible toilet.

Passenger lifts to comply with BCA Part E3.6:
- Minimum internal lift car dimensions to be 1100mm(W) x 1400mm(D) if the lift travels no more than 12m;
- Minimum internal lift car dimensions to be 1400mm(W) x 1600mm(D) if the lift travels more than 12m;
- Enhanced features are required to meet BCA / Premises Standard Clause E3.6 and AS1735.12 (1999).

Stair to comply with AS 1428.1 (2009), Clause 11 including:
- handrails to both sides with appropriate extensions to top and bottom;
- opaque risers;
-50-75mm wide luminance contrasting strip at the stair nosings;
- A minimum 30% luminance contrast is to be achieved between the stair nosing and the background;
- The area of luminance contrast must not extend down the riser more than 10mm; and
- Stair nosings to have a slip resistance rating of X;R10 when dry, and W;R11 when wet.

Stairs must be set back at least 600mm to ensure handrail extensions and TGSIs do not protrude into the transverse path of travel (AS1428.1 (2009), Clause 11.1(b)).

Consider providing height adjustable work surfaces, with an adjustment capability between 610mm and 870mm AFFL.

Alternatively, a management plan is to be implemented to ensure that the individual needs of staff are catered for on an as-needs basis.

Where an inbuilt amplification system is installed in any room (other than one used for emergency purposes only), a hearing augmentation system per BCA Clause D3.7 must be provided.

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 AS 1428.1(2009), Clause 6.6.
- 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.

All 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.

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.

Ensure minimum 1000mm (1200mm preferred) clear unobstructed width to the path of travel is maintained.

Braille and tactile signage complying with BCA Specification D3.6 and incorporating the international symbol for access or deafness as appropriate, must be provided to identify the following:
- 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; and
- Each door required by BCA Clause E4.5 to be provided with an exit sign and state "FIRE EXIT" and the floor level number.

Consider the provision of additional Braille and tactile signage as a wayfinding tool. This could include room names and directional cues throughout the building.

All doorways shall have a minimum luminance contrast of 30% between the door leaf / frame and the adjacent wall, for a minimum width of 50mm (AS1428.1 (2009), Clause 13.1.

FOR INF

Rev	App	Ckd	Revision or reason for issue	Date
00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

Legend

Structural & Civil
ARUP
10/102 Kent St
Sydney NSW 2000
02 9320 9320

Building Services
ARUP
10/102 Kent St
Sydney NSW 2000
02 9320 9320

Fire Engineering
ARUP
10/102 Kent St
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Artarmon NSW 2064
02 9412 2322

BCA
Group DLA
Level 3, No 10 Bridge St
Sydney NSW 2000
02 8355 316

Key Plan

Scale / North Point
1:100 @ A1, 1:200 @ A3
0 1 2 3 5m

General Notes
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Project Title
UNIVERSITY OF SYDNEY
CHAU CHAK WING MUSEUM

Client
The University of Sydney
Sydney
NSW
2006

Drawing Title
GENERAL ARRANGEMENT PLAN
UPPER LEVEL

Project Number 15037
Documentation Stage SD
Drawing Number JPW-SD-A-1007
Revision 01

SPIRE STAIRS STAIRS

PHILIP CHUN
Building Compliance
Access Consulting

Ref: AN16-207381_Chau Chak Wing Museum
Reviewed by: Lindsay Perry
Date: 03/04/17

FOR INFORMATION ONLY

Rev	App	Ckd	Revision or reason for issue	Date
00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

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Structural & Civil
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Sydney NSW 2000
02 9320 9320

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Sydney NSW 2000
02 9320 9320

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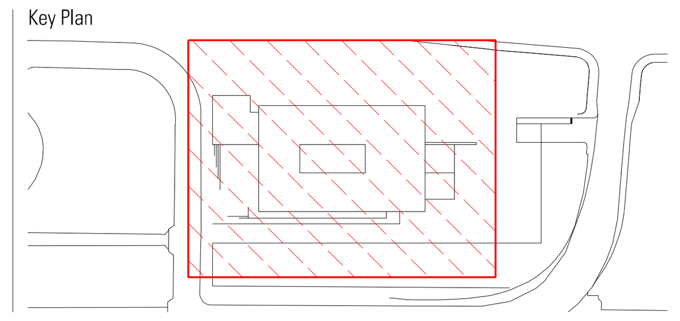
Key Plan



Scale / North Point

1:100 @ A1, 1:200 @ A3 — 0 1 2 3 5m

General Notes

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Client
The University of Sydney
Sydney
NSW
2006

Drawing Title
GENERAL ARRANGEMENT
PLAN
PLANT LEVEL

Project Number
15037

Documentation Stage
SD

Drawing Number
JPW-SD-A-1008

Revision
01

FOR INFORMATION ONLY

Rev	App	Ckd	Revision or reason for issue	Date
00	KL	DW	Coordination Issue	17/03/2017
01	KL	DW	Schematic Design	31/03/2017

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Structural & Civil
ARUP
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Sydney NSW 2000
02 9320 9320

Building Services
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Fire Engineering
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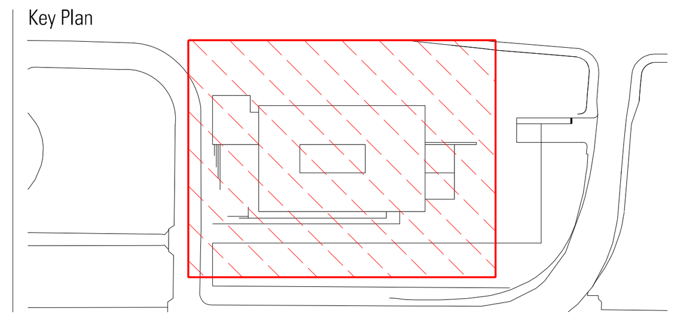
Key Plan



Scale / North Point
1:100 @ A1, 1:200 @ A3 — 0 1 2 3 5m

General Notes
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Drawing Title
GENERAL ARRANGEMENT
PLAN
ROOF PLAN

Project Number
15037

Documentation Stage
SD

Drawing Number
JPW-SD-A-1009

Revision
01

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Appendix 2 –Access Compliance Requirements

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.

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 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.

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.

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.

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.

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.

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 Clause 6.6.

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.

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.

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 800x1250mm.

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.

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.

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.

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 as follows.

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, 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.

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, Figure 47.

PEOPLE WITH AMBULANT DISABILITIES CUBICLES (PAD)

PAD cubicles within male and female toilets to be in compliance with AS1428.1, Clause 16.

Width of PAD cubicles is to be 900-920mm.

Provide grabrails to PAD cubicles to comply with AS1428.1, Clause 17 and Figure 53A.

Doors are to have a minimum opening width of 700mm and comply with AS1428.1 Figure 53B.

Provide signage to the PAD cubicles to comply with AS1428.1, Clause 16.4.

Provide 900x900 circulation space in front of pan and each side of doors on path to the toilet. Doors are not to swing into circulation spaces.

Appendix 3 – Best Practice Recommendations

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.

Consider providing a refuge area within fire isolated stairs by incorporating a 800mm x 1300mm area at stair landings of every accessible floor. A 1000mm unobstructed egress width to the area should be provided.

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.

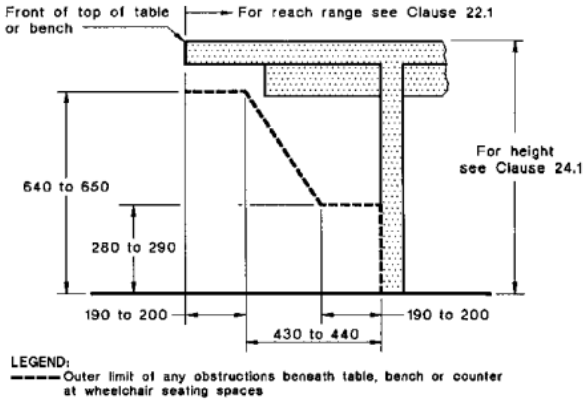
We also recommend that as a part of the emergency evacuation plan for the building, egress for persons requiring assistance be addressed. The provision of places of comparative safety within fire isolated passages would be advantageous to persons with a disability. This consists of a waiting area large 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.

RECEPTION COUNTERS

We recommend the provision of accessible reception counters designed in accordance with AS1428.2 (1992), Part 24.1.

- Provide a lower section of counter at a height between 830mm and 870mm above finished floor level.
- A counter required to be accessible must comprise a clear length of no less than 900mm.
- Where the counter requires a high level of interaction or worktop function: provide knee clearance of no less than 800mm in height for a minimum depth of 350mm; and foot clearance of not less than 300mm in height for a depth of 650mm.
- Where the counter requires brief or minimal interaction: provide knee clearance o no less than 750mm in height for a minimum depth of 350mm; and foot clearance of not less than 300mm in height for a depth of 400mm.
- Unobstructed circulation space must be provided in front of the lower height counter of 1540mm by 2070mm, with maximum grade of 1:40.
- Finished surfaces, including counter face and top, and the background to which each is viewed to be selected to ensure adequate definition for people with varying degrees of vision impairment, such as minimum 30% luminance contrast between counter top and counter face.
- Way-finding principles to be considered in the identification of the reception area, including provisions to aid detection of the accessible counter.

- Under the BCA an assistive listening is to be provided where the client is screened from the service provider. In order to satisfy the requirements of the DDA it is recommended that an assistive listening system, including Braille and tactile signage, be provided at any place where a service provider deals with a client or customer (reception desk) (AS 1428.2:1992 Clause 21.1).



NOTE: For width of seating spaces see Clause 24.1.3.

DIMENSIONS IN MILLIMETRES

FIGURE 25 KNEE AND FOOT CLEARANCE BENEATH A TABLE, BENCH OR COUNTER

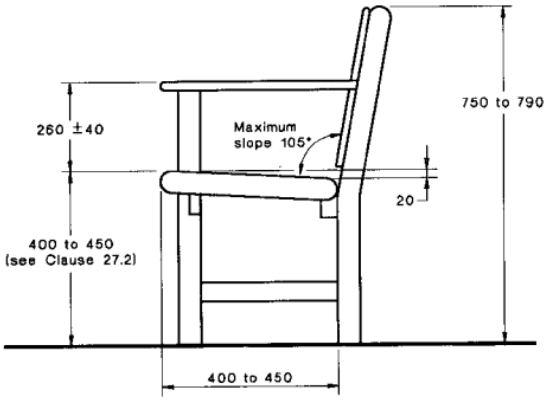
SEATING TO PUBLIC AREAS

Where seating is located within public areas (for example to waiting area at Level 16), a proportion of accessible seating should be provided offering compliance with AS1428.2:1992 Clause 27.

Provide a seat height of 450mm; with side arms that extend a further 260mm +/- 40mm in height.
Seating to have a back height of 750mm-790mm (AS 1428.2:1992 Clause 27.2). · Armrests must not extend beyond the perimeter of the base or legs of the seat to ensure stability of the chair when rising with use of only one armrest.· Heel space of at least 150mm with a minimum width of 350mm should be provided under seats to assist in rearward adjustments of feet when rising.

Seats located adjacent to pathways to set back at least 600mm to allow leg room without obstructing the adjacent path (AS 1428.2:1992 Clause 27.1(a)).

At casual seating spaces, waiting areas and the like, provide a minimum of 900mm space between seats or at either end to accommodate wheelchair users.



(a) Side view — Type A

In addition, the provision wheelchair seating places within waiting areas is highly recommended. These spaces to allow a floor space of 800x1300mm.

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 use of pictograms is recommended as is the use of luminance contrast to ensure the message is clear and legible.

The height of letters in signs shall be not less than that show in the table below – AS1428.2(1992), Table 2.

HEIGHT OF LETTERS FOR VARYING VIEWING DISTANCES

Required viewing distance m	Minimum height of letters* mm
2	6
4	12
6	20
8	25
12	40
15	50
25	80
35	100
40	130
50	150

* For further information on the heights of letters for different situations, reference should be made to AS 1744.

NOTE: Helvetica Medium typeface is preferred.

The development of a way-finding 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.

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).

It is recommended that adjustable tables have a height adjustment capacity accommodating standing and seated users per AS4442 (1997).

Power and data outlets to be provided at desk top height at a distance not greater than 550mm from the front edge of the desktop (AS 1428.2:1992 Clause 22.; Figure 20 (b)).

The provision of a clear floor space of not less than 1370mm between the table edge and the opposing wall or fixtures will allow access by a person in a wheelchair to or past the table.

Ensure the layout of furniture and fittings allows for the provision of accessways in accordance with AS 1428.1 (2009), including:

- Minimum widths of paths of travel to be not less than 1000mm;
- Passing spaces with a minimum width of 1800mm and minimum length of 2000mm to be provided along paths of travel 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 paths of travel 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° turn.

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

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.

This includes consideration to a bench height of 870mm in lieu of 900mm, appropriate knee and foot clearance to the underside of utility benches and appropriate circulation space within the room.

To provide access for people using wheelchairs, the sink should be located at a height between 850mm-870mm above the finished floor. The design of the sink must allow knee and foot clearance to the underside of the bowl for a clear width of no less than 900mm, in accordance with the following:

- Provision of knee clearance of no less than 680mm in height for a minimum depth of 300mm.
- Provision of foot clearance of not less than 290mm in height for a depth of 200mm (AS 1428.2:1992 Figure A2).
- Provide a section of clear bench space of no less than 900mm in length adjacent to the sink
- Provide a maximum depth to the sink of 150mm. This applies to the main bowl where a double sink is installed.

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 / way-finding 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.

CHANGING PLACES

Changing Places Australia is an initiative of the Association for Children with a Disability to provide safe and clean accessible toilets for use by people with severe disabilities. The goal is to have “changing places” incorporated within high use public buildings such as sporting venues, shopping centres and transport interchanges. A standard unisex accessible toilet offers a facility for independent use. Often being designed to minimum dimensions, they generally do not allow for assistance from a carer which is required by many people with severe disabilities. The lack of suitable changing places presents a barrier to inclusion within the community for many Australians.

Philip Chun Access is taking a pro-active role in ensuring that the provision of a changing place is at least considered within the design / redevelopment of major public buildings. The key design principles to be incorporated include a ceiling hoist, adequate circulation areas to allow for up to two assistants, and an adult change table which is fully adjustable.

Over 200,000 Australians are in need of facilities like this to be able to participate in their communities. The provision of changing places promotes inclusion and is expected to be adopted by many Councils’ planning policies in the near future.

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).

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.

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.

AS1428.2 (1992) recommends the following minimum illumination levels:

- Entrances 150lx
- Passages and walkways 150lx
- Stairs 150lx
- Toilets and Locker rooms 200lx
- Counter tops 250lx
- Generally displays 200-300lx

At reception counters, appropriate lighting levels at the counter areas must be provided in accordance with AS 1680.2.2 (1994).

Generally, a task lighting of no less than 320lx must be provided with environmental lighting of no less than 160lx. That is:

(i) Where general lighting only is provided to provide both task and environmental lighting, the illuminance throughout the area shall be no less than 320lx; or

(ii) Where a system of local lighting is provided for tasks in combination with reduced environmental lighting, this may be provided as noted above (AS 1680.2.2:1994 Appendix F (b); AS1680.2.2:1994 Table F1).