PHILIP CHUN
Building Compliance

Mixed Use Development

Cnr Lake, West & Middle Street, Forster NSW

Report Prepared for: Coastplan Group
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Design Review – Accessibility

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DOCUMENT ACCEPTANCE

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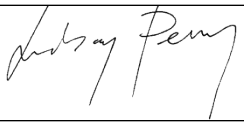
Prepared by	Sophia Kitson *Access Consultant* *ACAA Associate Member 531*		16 March 2017
Reviewed by	Lindsay Perry *Associate* *ACAA Accredited Member 136*		31 March 2017

REVISION HISTORY

Revision No.	Issued by	Description	Date
00	Lindsay Perry	DRAFT for comment	16 March 2017
01	Lindsay Perry	Issued for DA	31 March 2017

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

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

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

1. INTRODUCTION

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

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

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

1.1 Site and Contexts

The site is located on the corner of Lake, West and Middle Streets in Forster NSW. Pedestrian entrances are via plaza-like spaces along the Lake, West and Middle Street frontages. Vehicular entrances to the development are from north-eastern corner of Lake Street and from the middle of West Street.

The project consists of a multi-tower, multi-storey development which accommodates restaurants, cafes, retail tenancies, nightclub, library, gymnasium, cinema, childcare centre, visitor information centre, hotel, serviced apartments, residential units for seniors living, community lounge, activity rooms and associated carparking.

1.2 Reviewed Documentation

This report is based upon the following design documents produced by TVS Architects for Philip Chun Access review. Reference was also made to previously issued sketch plans (as noted on the marked up drawings where assumptions were made as to the function and use of spaces).

Document No	Title	Revision
5490.01	Cover Sheet	3
5490.21	Staging Plan	3
5490.22	Lower Basement 2 Plan	5
5490.23	Upper Basement 1 Plan	5
5490.24	Ground Floor Plan	6
5490.25	Level 1 Floor Plan	6
5490.26	Level 2 Floor Plan	6
5490.27	Level 3 Floor Plan	6
5490.28	Level 4 Floor Plan	6
5490.29	Level 5 Floor Plan	6
5490.30	Level 6 Floor Plan	6
5490.31	Level 7 Floor Plan	7

Document No	Title	Revision
5490.32	Level 8 & 9 Floor Plan	5
5490.40	Typical Unit Plans	4
5490.42	Typical Unit Plans	4
5490.43	Typical Unit Plans	1
5490.50	Elevations	5
5490.51	Elevations	5
5490.52	Elevations	4
5490.60	Site Sections	4
5490.90	Library Zoning Plan – Ground	3
5490.91	Library Zoning Plan – Level 1	3

1.3 Methodology

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

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

2. LEGISLATION

2.1 National Construction Code / The 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.
- Consolidated Performance Requirements provides a compilation of all NCC Performance Requirements and the supporting General Requirements in a single document.

The classification for the proposed buildings pursuant to the BCA is assumed as follows:

Level	Proposed Use	Building Classification
Basement 2	Carparking Night club	Class 7a Class 9b
Basement 1	Restaurant lobby/café Car parking Night club Hotel lobby	Class 6 Class 7a Class 9b Class 6
Ground Floor	Residential apartment lobbies Supermarket, retail tenancies, restaurants/cafes Hotel mezzanine/lobby Childcare, Gym, Multiplex Cinemas, Library, Visitor Information Centre	Class 6 Class 6 Class 6 Class 9b
Level 1	Residential apartments and resident's club Hotel restaurant Carparking Library Hotel bar / gym Hotel terrace pool	Class 2 / 9b Class 6 Class 7a Class 9b Class 9b Class 10b
Level 2	Residential apartments Hotel rooms Carparking	Class 2 Class 3 Class 7a
Level 3	Residential apartments Hotel rooms Cinemas	Class 2 Class 3 Class 9b
Level 4	Residential apartments Hotel rooms Cinemas	Class 2 Class 3 Class 9b
Level 5	Residential apartments and residents' facilities Hotel rooms	Class 2 Class 3
Level 6	Residential apartments Hotel serviced apartments Residential apartment communal pool	Class 2 Class 3 Class 10b
Level 7	Residential apartments Hotel serviced apartments	Class 2 Class 3
Level 8, 9 and 10	Residential apartments	Class 2

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

Class of building	Access requirements
Class 2	
Common areas	From a pedestrian entrance *required* to be accessible to at least one floor containing *sole-occupancy units* and to the entrance doorway of each *sole-occupancy unit* located on that level. To and within not less than one of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, *swimming pool*, common laundry, games room, individual shop, eating area, or the like. Where a ramp complying with AS 1428.1 or a passenger lift is installed- (a) to the entrance doorway of each sole-occupancy unit; and (b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.
Class 3	
Common areas	From a pedestrian entrance *required* to be *accessible* to at least one floor containing *sole-occupancy units* and to the entrance doorway of each *sole-occupancy unit* located on that level To and within not less than one of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, *swimming pool*, common laundry, games room, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunchroom, lounge room, or the like Where a ramp complying with AS 1428.1 or a passenger lift is installed: (a) to the entrance doorway of each *sole-occupancy unit*; and (b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp
Sole-occupancy units If the building or group of buildings contain: 1 to 10 *sole-occupancy units*	Not more than 2 *required accessible sole-occupancy units* may be located adjacent to each other Where more than 2 *accessible sole-occupancy units* are *required*, they must be representative of the range of rooms available To and within: 1 *accessible sole-occupancy unit*
11 to 40 *sole-occupancy units*	2 *accessible sole-occupancy units*
41 to 60 *sole-occupancy units*	3 *accessible sole-occupancy units*
61 to 80 *sole-occupancy units*	4 *accessible sole-occupancy units*
81 to 100 *sole-occupancy units*	5 *accessible sole-occupancy units*
101 to 200 *sole-occupancy units*	5 *accessible sole-occupancy units* plus 1 additional *accessible sole-occupancy unit* for every 25 units or part thereof in excess of 100

Class of building	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 7a	To and within any level containing *accessible* carparking spaces
Class 9b	
Schools and *early childhood centres*	To and within all areas normally used by the occupants
An *assembly building* not being a *school* or an *early childhood centre*	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
Class 10b	
Swimming pool	To and into *swimming pools* with a total perimeter greater than 40m, associated with a Class 1b, 2, 3, 5, 6, 7, 8 or 9 building that is *required* to be *accessible*, but not *swimming pools* for the exclusive use of occupants of a 1b building or a *sole-occupancy unit* in a Class 2 or Class 3 building

2.2 Disability Discrimination Act 1992 (Cth) (DDA)

The accessibility assessment process covers all aspects of the infrastructure (premises), to the extent required to meet the objectives of the Disability Discrimination Act 1992 (Cth), including, however not limited to, Section 23 which relates to access to premises and facilities which the public may enter or use.
The Act is enforced primarily through a complaints mechanism, which allows individuals who have directly or indirectly experienced unlawful discrimination to seek a conciliated outcome through the Australian Human Rights Commission and, in the instance of unsuccessful conciliation, to bring an action in the Federal Magistrates Court or the Federal Court of Australia.

2.3 Access to Premises Standards – General

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

It is noted that the Premises Standards are limited in scope, covering aspects of building compliance applicable under the BCA. It is acknowledged that the Premises Standards could address a broader range of accessibility issues including considerations to accessibility of parkland, playgrounds, transport vehicles, interior fit-out of buildings, and fixtures and fittings. As such, there are features which fall beyond the scope of the Standards which may be subject to the general complaints provisions of the DDA.

3. SEPP SITING REQUIREMENTS

The proposed development has been designed to reflect the requirements of the SEPP and the Australian Standards nominated in this document including AS1428 and AS4299. This development contains self-contained dwellings. Therefore, the requirements of SEPP Clause 26: Location and Access to Facilities; and Clause 38: Accessibility are relevant.

3.1 Location and access to facilities – SEPP Clause 26

A SEPP development must offer access to services such as shops, banks, retail services, commercial services, recreational facilities, community facilities and doctors. These facilities are to be located within 400m of the site via an accessway that provides an accessible path of travel.

For development outside the Sydney Statistical Division, these services can be located at a distance greater than 400m from the site if there is a transport service available. The transport service is required to take residents to a place that is located at a distance of not more than 400m from the relevant facilities or services and is to be available to and from the proposed development during daylight hours at least once each day from Monday to Friday.

Location of the Site

The site is located within 300m walking distance of the shopping precinct on Wharf Street. Information on the gradients of the road verges has not been provided, but the local topography appears to be quite flat (as viewed on Google Street View) and pedestrian pathways are likely to be suitable access pathways.

Additionally, Forster Buslines operates in the area, with routes 303, 304 & 305 connecting local residents with the Wharf Street shopping precinct that provides the services listed above. Bus stops are available along Lake Street, Middle Street and Little Street within close proximity to the site. Bus services operate seven days a week – refer to Appendix A for Forster Buslines map.

The above aerial photograph shows the location of the site bounded by Lake, West and Middle Streets and its proximity to the shopping precinct on Wharf Street.

The proposed development meets the intent of this SEPP clause. It is located within 400m of facilities as listed and within 400m of a bus stop that provides access to facilities as listed.

3.2 Accessibility – SEPP Clause 38

A SEPP development should have obvious and safe pedestrian links from the site that provide access to public transport services or local facilities. A development should provide attractive, yet safe, environments for pedestrian and motorists with convenient access and parking for residents and visitors.

The proposed development meets the intent of this Clause with links to public transport.

Insufficient information has been provided to determine whether carparking will be provided for visitors at the front of the site with an accessible path of travel to dwellings. We recommend this be addressed during future design stages.

4. SEPP SCHEDULE 3 – STANDARDS CONCERNING ACCESSIBILITY AND USABILITY FOR SELF CONTAINED DWELLINGS

The dwellings within the proposed development have been considered against SEPP-Housing for Seniors and People with Disabilities (SEPP) and the Australian Standards nominated in this document including AS1428 and AS4299.

Part 1: Self contained dwellings - standards concerning access and usability (Clauses 1 – 21) is applicable in this instance.

A “self contained dwelling” is defined as a dwelling or part of a building (other than a hostel), whether attached to another dwelling or not, housing seniors or people with a disability, where private facilities for significant cooking, sleeping and washing are included in the dwelling or part of the building, but where clothes washing facilities or other facilities for use in connection with the dwelling or part of the building may be provided on a shared basis.

There are 143 self-contained dwellings on the site. They are provided as one, two and three bedroom plus study options and four bedroom penthouse suites. All self-contained dwellings are intended for seniors living with the exception of the penthouse suites. Car parking for residents is provided on levels 1 and 2, and on the mezzanine/library level.

4.1 Wheelchair access – SEPP Schedule 3 Clause 2 (1, 2)

Where the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous path of travel within the meaning of AS1428 to an adjoining public road or an internal road or a driveway that is accessible to all residents.

If the whole of the site does not have a gradient of less than 1:10, a percentage (which is not less than the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater) of any dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428) to an adjoining public road or an internal road or a driveway that is accessible to all residents.

Wheelchair access by a continuous accessible path of travel is provided from Lake and West Streets via a landscaped plaza to the principal building entrances (at Ground Level) and is capable of compliance.

4.2 Road access – SEPP Schedule 3 Clause 2 (3)

At least 10% of any dwellings that meet the requirements of subclause (1) must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428) to an adjoining public road.

Wheelchair access by a continuous accessible path of travel is provided from all dwellings to the street footpaths in compliance with SEPP.

4.3 Common areas – SEPP Schedule 3 Clause 2 (3)

Access must be provided so that a person using a wheelchair can use common areas and common facilities associated with the development.

The following common areas are provided within the development:

- *Residents' Club and Deck on Level 1;*
- *Rooftop terrace on Level 3 (to be confirmed);*
- *Resident's facilities and Roof Terrace on Level 5 (to be confirmed);*
- *Roof terrace and pool on Level 6 (to be confirmed).*

All common areas within the building are provided with access by lifts, however limited information has been provided regarding the internal layouts of the common areas and resident's facilities. We consider the development capable of compliance subject to detailing during detailed design stages.

4.4 Security – SEPP Schedule 3 Clause 3

Pathway lighting is to be designed and located to avoid glare for pedestrians and adjacent dwellings. Lighting to be minimum 20 lux at ground level.

Detailed design to ensure lighting is designed and located to as to avoid glare for pedestrians and adjacent dwellings and provides at least 10 lux at ground level.

4.5 Letterboxes – SEPP Schedule 3 Clause 4

Letterboxes are required to be lockable, in a central location and be accessible to persons using a wheelchair via an accessible path of travel.

Letterboxes are located adjacent to the pedestrian entrances to the site in keeping with SEPP requirements.

Detailed design is to ensure letterboxes are lockable. We recommend that letterboxes be provided within common reach ranges of 700-1200mm above the adjacent ground surface, per AS1428.2 (1992).

4.6 Private car accommodation – SEPP Schedule 3 Clause 5

SEPP 2004 does not specify the number of car parking spaces required, nor does it specify the ratio of accessible car parking spaces. However it does specify the required dimensions of each car parking space, the required head height clearance and the height at the entry to the garage.

If car parking (not being for employees) is provided,

- Carparking spaces must comply with the requirements for parking for persons with a disability set out in AS2890 and
- 5% of the total number of car parking spaces must be designed to enable the width of the spaces to be increased to 3.8m and
- Any garage must have a power operated door.

SEPP was released when AS2890.1 (2004) was applicable. This, and the ability to be able to increase 5% of carparking to 3800mm wide, suggests that carparking for residents should have a minimum width of 3200mm (per AS2890.1(2004) Clause 2.4.5, rather than the 4800mm required by AS2890.6.

The current design indicates residential car parking spaces with typical dimensions of 5400mm (l) x 3200mm (w), meeting the requirements of SEPP 2004.

5% of spaces are capable of being increased to 3800mm wide.

4.7 Accessible entry –SEPP Schedule 3 Clause 6

Every entrance to each residence, whether it be the front entry or not, must comply with Clauses 4.3.1 and 4.3.2 of AS4299. Clauses 4.3.1 and 4.3.2 of AS4299 require the entry door to comply with AS1428.2 – the minimum clear opening width of the doorway is to be 850mm and allow for wheelchair manoeuvrability (provide minimum 1550mm long area in front of the doorway).

Door hardware is to comply with AS1428. In this regard, entry door hardware is to be in the accessible height range of 900-1100mm above finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

> *Every unit is provided with an internal main entrance, accessible via lifts through the Entrance Lobby at the Ground Floor Level. Entrances indicate that adequate door circualtion areas are provided for compliance. It is assumed that the Main Entry door threshold will not contain a lip or step.*
>
> *Detailed design stages to ensure door opening widths, hardware and the like are in keeping with SEPP requirements.*

4.7 Interior – SEPP Schedule 3 Clause 7

Widths of internal corridors and circulation at internal doorways must comply with AS1428.1. SEPP requires all internal doors to have a clear opening width of not less than 850mm, per Clause 13 of AS1428.1 (2009).

All internal corridors must have a width of not less than 1000mm. Door circulation to comply with Clause 13.3 and Figure 31 of AS 1428.1 (2009) and may be dependent upon the predominant direction of approach.

> *Circulation spaces and corridors are provided with sufficient areas to meet SEPP requirements.*

4.9 Main bedroom – SEPP Schedule 3 Clause 8

At least one bedroom is required to have adequate space for a wardrobe and a queen size bed with minimum 1200mm wide circulation at the foot of the bed, 1000mm between the bed and wall / wardrobe or any other obstruction. There are also requirements for locations of GPOs and telephone outlets and illumination levels.

> *The drawings provided of unit types showing typical unit floor plans are capable of compliance with the SEPP.*

4.10 Bathroom – SEPP Schedule 3 Clause 9

At least one bathroom must be located on the entry level and have an area that complies with AS1428, slip resistant floor, shower minimum 1100x1160mm with future provision for accessible features, washbasin capable of adaption to comply with AS4299 and a wall cabinet with illumination levels as described.

SEPP allows for future adaption of bathroom areas that reflect the individual needs of the residents.

> *The drawings provided of unit types showing typical unit floor plans are capable of compliance with the SEPP. Detailed design should address additional items as listed in the SEPP.*

4.11 Toilet – SEPP Schedule 3 Clause 10

A self contained residence is required to have a toilet on the ground (or main) floor that complies with the requirements for sanitary facilities of AS4299. That is, a visitable toilet being a toilet with a space of minimum 1250mm x 900mm in front of the WC pan, clear of door swings and fixtures including washbasins.

Further to the above, the WC pan must be located from fixed walls in accordance with AS1428 and sufficient reinforcing must be provided within the walls to accommodate grabrails, either initially or in the future. The floor must be provided with a slip-resistant surface.

The toilet within the main bathroom of each unit type provides a visitable toilet meeting SEPP requirements.

4.12 Surface finishes – SEPP Schedule 3 Clause 11

Balconies and external paved areas must have slip resistant surfaces

We recommend this be addressed during detailed design phases.

4.13 Door hardware – SEPP Schedule 3 Clause 12

Door handles and hardware for all doors must be provided in accordance with AS4299.

We recommend this be addressed during detailed design phases.

Door hardware is to be operable with one hand and in the height range of 900-1100mm above the floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

4.14 Ancillary items – SEPP Schedule 3 Clause 13

Switches such as light switches must be located within the accessible height range of 900-1100mm above the floor level as required by AS4299.

We recommend this be addressed during detailed design phases.

Ensure switches are located between 900-1100mm above the floor level; and general purpose outlets (GPOs) are located at least 600mm above the floor level.

4.15 Living and dining room – SEPP Schedule 3 Clause 15

Living areas within each residence are required to have circulation areas in accordance with AS4299, Clause 4.7. In this regard, an area with 2250mm diameter is required, clear of furniture.
A telephone outlet adjacent to a general power outlet and illumination level of 300 lux is also a requirement for living areas.

Open plan nature of living areas will accommodate the above-mentioned circualtion requirements and are therefore considered capable of compliance with the SEPP. Detailed design should address additional items as listed in the SEPP.

4.16 Kitchen – SEPP Schedule 3 Clause 16

A kitchen in a self contained dwelling must have:

Circulation space in accordance with AS4299, Clause 4.5.2
A width at door approaches complying with Clause 7 of this schedule
Fittings and fittings in accordance with the relevant sub clauses of AS4299, Clause 4.5.

Kitchens are provided in an L-shape arrangement which meets circulation requirements of the SEPP. Detailed design will need to address the following:

- *Benches that include at least one work surface that is at least 800mm long and can be adjusted or replaced as a unit at variable heights within the range of 750-850mm above the finished floor surface;*
- *Lever tapware located within 300mm of the front of the sink;*
- *Cooktops with either front or side controls, raised cross-bar controls for ease of grip and an isolating switch;*
- *A work surface adjacent the cooktop and at the same height , at least 800mm long;*
- *An oven located adjacent to a work surface the height of which can be adjusted;*
- *"D" pull cupboard handles located towards the top of under-bench cupboards and towards the bottom of overhead cupboard;*
- *General power outlets, including a double GPO within 300mm of the front of a work surface and one for the refrigerator that is positioned for easy access after the refrigerator is installed.*

4.17 Access to kitchen, main bedroom, bathroom and toilet – SEPP Schedule 3 Clause 17

In multi-storey residences, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.

Not applicable. Units are provided over a single level.

4.18 Lifts in multi-storey developments – SEPP Schedule 3 Clause 18

In a multi storey building containing self-contained dwellings, lift access must be provided to dwellings above the ground level by way of a lift complying with Clause E3.6 of the BCA.

Sufficient lifts are provided within the building to provide access to the entry level of all self-contained dwellings. At this stage in the design, limited information has been provided regarding the internal lift dimensions of lifts across all lift banks. We note that the size nominated and distribution is considered capable of compliance.

Ensure all lifts are provided with minimum internal car dimensions of 1400mm X 1600mm, as the lifts travel more than 12m.

4.19 Laundry – SEPP Schedule 3 Clause 19

A self contained dwelling must have a laundry that has:

A width at door approaches that complies with Clause 7 of the Schedule.
Provision for the installation of an automatic washing machine and a clothes dryer.
A clear space in front of appliances of at least 1300m
Slip resistant floor
An accessible path of travel to any clothes line.

Laundry cupboards are provided in corridor areas which mees circulation requirements of the SEPP. Detailed design will need to address the following:

- *The provision for the installation of an automatic washing machine;*
- *The provision for the installation of a clothes dryer;*
- *Has a clear space in front of appliances of at least 1300mm;*
- *Has a slip-resistant floor surface; and*
- *Has an accessible path of travel to any clothes line provided in relation to the dwelling.*

4.20 Storage – SEPP Schedule 3 Clause 20

A self contained dwelling must be provided with a linen cupboard in accordance with AS4299, Clause 4.11.5. It should be at least 600mm wide that have adjustable shelving.

Linen storage is available within each unit type. Detailed design will address the provision of adjustable shelving.

4.21 Garbage – SEPP Schedule 3 Clause 21

A garbage storage area must be provided in an accessible location.

Communal bin chutes are provided to each level and are currently not wheelchair accessible. We have been advised that detailed design will address circulation spaces ,reach ranges and chute opening forces.

5. ACCESSIBILITY PROVISIONS MIXED USE DEVELOPMENT

External areas of the development are generally comprised of a civic plaza between the buildings and Lake, West and Middle Streets, and landscaped gardens and courtyards on the eastern and southern boundaries.

Pedestrian entry to the building is via the plaza. Three residential lobbies are provided as well as pedestrian entries to the hotel, childcare, gym, retail tenancies, cinema, restaurants/cafes, community facilities, visitor information centre and library.

5.1 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 to the building entrance – refer to Appendix B for compliance requirements regarding pathways, ramps and walkways.

5.2 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.

Lift access is available to accessible carparking areas. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.3 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.

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

5.4 Accessible Carparking (BCA Part D3.5)

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

Class of building to which the Class 7a building or carparking area is associated	Number of accessible carparking spaces required
Class 3	
(a) Boarding house, guest house, hostel, lodging house, backpackers accommodation, or the residential part of a hotel or motel.	To be calculated by multiplying the total number of carparking spaces by the percentage of: (a) accessible sole-occupancy units to the total number of sole-occupancy units; or (b) *accessible* bedrooms to the total number of bedrooms; and the calculated number is to be taken to the next whole figure.
(b) Residential part of a *school*, accommodation for the aged, disabled or children, residential part of a *health care building* which accommodates members of staff or the residential part of a detention centre.	1 space for every 100 carparking spaces or part thereof.
Class 5 and 7	1 space for every 100 carparking spaces or part thereof.
Class 6	
(a) Up to 1 000 carparking spaces; and	1 space for every 50 carparking spaces or part thereof.
(b) for each additional 100 carparking spaces or part thereof in excess of 1 000 carparking spaces.	1 space.
Class 9b	
(b) Other assembly buildings: (i) up to 1 000 carparking spaces; and (ii) for each additional 100 carparking spaces or part thereof in excess of 1 000 carparking spaces.	 1 space for every 50 carparking spaces or part thereof. 1 space.

Accessible carparking is provided within the basement areas in keeping with BCA requirements.

Six (6) accessible spaces out of 249 spaces are provided within the retail / library parking areas.

Two (2) accessible spaces out of 44 spaces are provided within the hotel parking areas which represents 6% of all hotel carparking.

Configuration of accessible carparking is consistent with AS2890.6 requirements. Refer to Appendix B for compliance details.

5.5 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, 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.

Levels provided on the drawings indicate that level entrances are achievable and therefore we consider the design capable of compliance. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.6 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.

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

Further development of the design is required to ensure compliant turning and passing areas within corridor areas. Refer to Appendix B for compliance details.

5.7 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.

5.8 Internal Doors

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

Table 5.3(a) – Hinged Door Requirements

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

	Away from occupant	340	560	1220
Either Side	Towards occupant	900	660	1670
	Away from occupant	660	560	1240

Table 5.3(b) – Sliding Door Requirements

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

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

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

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

Insufficient detail is provided at this stage of the design process to ascertain compliance. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.9 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).

Most areas of the development are generally considered accessible. However, we foresee exemptions needing to be sought for areas such as the bin store area and commercial kitchens associated with the hotel and restaurants/cafes. We recommend permitted exemptions be addressed in more detail during subsequent design stages.

5.10 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. Refer to Appendix B for compliance details.

5.11 Hearing augmentation (BCA Part D3.7)

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

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

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

If required by the BCA, we recommend that the abovementioned items be addressed during subsequent design stages.

5.12 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 stairways, travelators, and where accessways meets a vehicular way in the absence of a kerb or kerb ramp. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

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

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

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

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

Wheelchair seating will be required within the cinemas. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.14 Swimming pools (BCA Part D3.10)

The BCA Part D3.10 requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that is required to be accessible (Table D3.1).

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic wheelchair; or a zero depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift. For pools with a perimeter greater than 70m, the use of a swing stile swimming pool lift is not permitted.

There are two pools included in the development: one for the use of hotel guests and one for the use of residents of the private units. While it is not possible to accurately scale off the sketch plans provided, it appears the perimeter of the pools measure more than 40m each and as such are required to be accessible.

We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.15 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 B for compliance requirements.

5.16 Slip Resistance (BCA Part D2.14)

Landings in a stairway must have;

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

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

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

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

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

5.18 Unisex Accessible Toilets (BCA Part F2)

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

Class of building	Minimum accessible unisex sanitary compartments to be provided
Class 2	Where *sanitary compartments* are provided in common areas, not less than 1
Class 3	(a) In every accessible sole-occupancy unit provided with sanitary compartments within the accessible sole-occupancy unit, not less than 1; and (b) at each bank of *sanitary compartments* containing male and female *sanitary compartments* provided in common areas, not less than 1

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

Design

- An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels.
- The circulation spaces, fixtures and fittings of all accessible sanitary facilities must comply with the requirements of AS1428.1.
- Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible.
- The door to a fully enclosed sanitary compartment must:
  (i) Open outwards; or
  (ii) Slide; or
  (iii) Be readily removable from the outside of the sanitary compartment,
  Unless there is a clear space of at least 1.2m measured in accordance with Figure F2.5, between the closet pan with the sanitary compartment and the doorway.

Location

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

Insufficient detail is provided at this stage of the design process to ascertain compliance. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.19 Unisex Accessible Showers (BCA Part F2)

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

Class of building	Minimum accessible unisex showers to be provided
Class 2	Where showers are provided in common areas, not less than 1.
Class 3	(a) In every accessible sole-occupancy unit provided with showers within the accessible sole-occupancy unit, not less than 1; and (b) 1 for every 10 showers or part thereof provided in common areas.
Class 5, 6, 7 and 9 — except for within a ward area of a Class 9a *health-care building*	Where Part F2.3 of the *BCA* requires 1 or more showers, not less than 1 for every 10 showers or part thereof.

Insufficient detail is provided at this stage of the design process to ascertain compliance. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.20 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.

  Insufficient detail is provided at this stage of the design process to ascertain compliance. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance details.

5.21 Accessible Hotel Rooms / Serviced Apartments

The BCA requires the provision of accessible rooms / serviced apartments. Accessible hotel rooms and serviced apartments are required to offer access to and within for people with disabilities. This includes the provision of doorways (including circulation areas) and bathrooms in accordance with AS1428.1 (2009).

> *For this development a total of 102 rooms are provided in a combination of hotel rooms and serviced apartments. Six (6) accessible rooms / serviced apartments are therefore required. AT this stage f the design development the accessible rooms have not been nominated. We note that all hotel rooms and serviced apartments are provided with an accessible entry door.*

6. VERTICAL CIRCULATION

Lifts provide the main access between levels of the buildings. Thirteen lifts are provided throughout the development. Stairs within the building are fire egress stairs. Stairs are also provided on lower ground/ basement 1 for access to the ground plaza level, and a stairway is provided in the library to link the two levels.

6.1 Passenger Lifts (BCA Part E3)

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

Lifts have a floor area that appears to be sufficient for compliance and are distributed throughout the development. We recommend that the abovementioned items be addressed during subsequent design stages – refer to Appendix B for compliance requirements.

6.2 Stairs (BCA Part D3.3)

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

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

Stairs are provided in basement one for access to the ground plaza level. Stairs are also provided within the library and for emergency exits. AS1428.1 has access requirements for all public access stairs and is applicable in this instance.

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

6.3 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).

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

6.4 Travelators (BCA Part D3.8)

Travelators do not form a part of the accessible path of travel within the meaning of AS 1428.1 (2009). However, they are subject to BCA requirements with regard to the provision of tactile indicators.

We recommend that tactile indicators be addressed during subsequent design stages – refer to Appendix B for compliance requirements.

7. ADDITIONAL ACCESSIBILITY CONSIDERATIONS

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

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

- Fire Egress for People with Disabilities
- Accessible Reception Counters
- Seating in Public Areas

- Signage and Wayfinding
- Access controlled entries to carparks
- Depth of Door Recess
- Luminance Contrast
- Changing Places
- Lockers
- Furniture Hardware
- Lighting and Glare

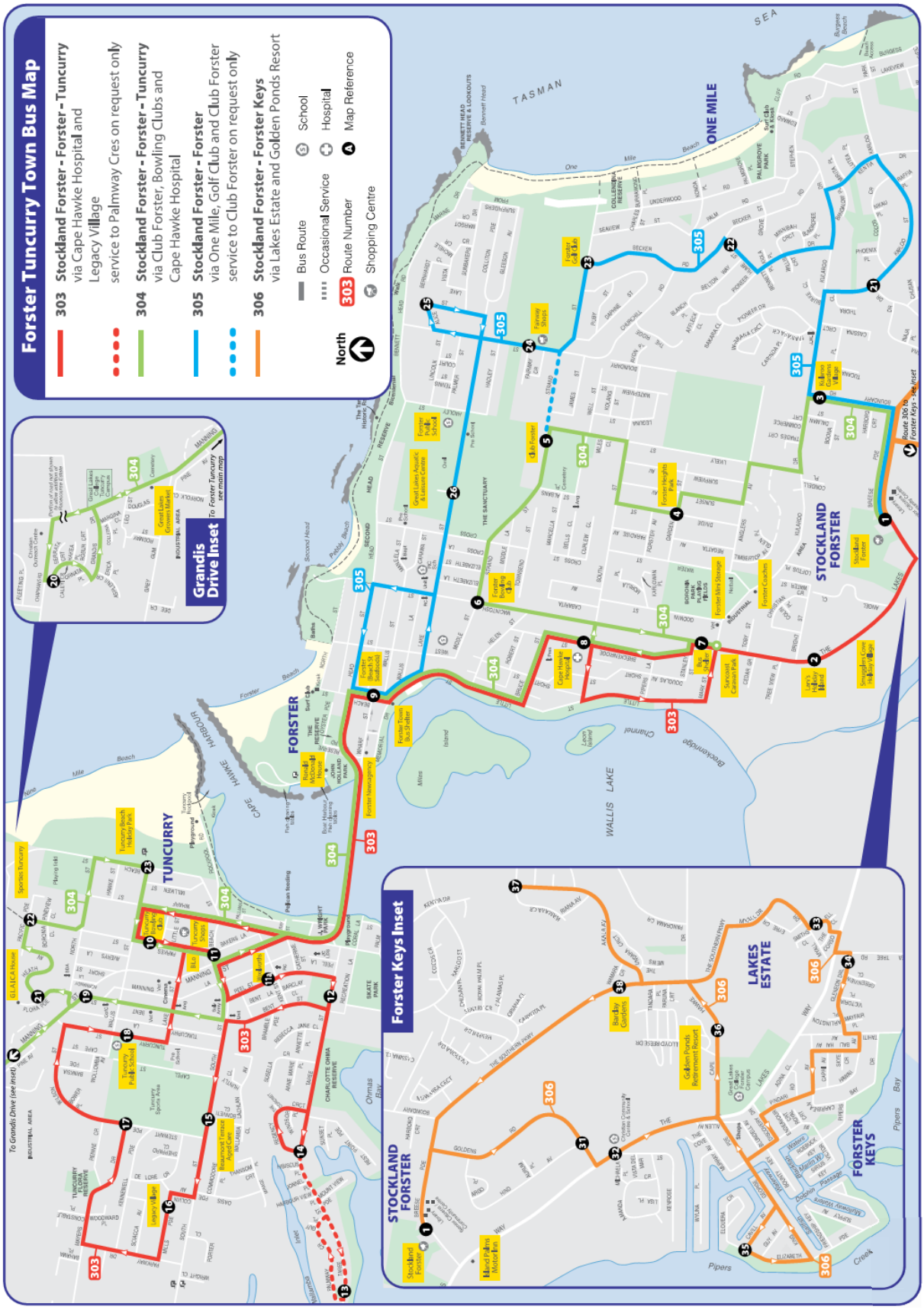
8. CONCLUSION

We have assessed the architectural documentation available to date and have reviewed the proposed building works with respect to the Building Code of Australia 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 2016 compliance can be finalised prior to the issue of a Construction Certificate.

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

APPENDIX A

BUS ROUTES


Forster Tuncurry Town Bus Map
303 Stockland Forster - Forster - Tuncurry via Cape Hawke Hospital and Legacy Village service to Palmway Cres on request only
304 Stockland Forster - Forster - Tuncurry via Club Forster, Bowling Clubs and Cape Hawke Hospital
305 Stockland Forster - Forster via One Mile, Golf Club and Club Forster service to Club Forster on request only
306 Stockland Forster - Forster Keys via Lakes Estate and Golden Ponds Resort
Bus Route
Occasional Service
303 Route Number
Shopping Centre
School
Hospital
Map Reference
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Grandis Drive Inset
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FORSTER
TUNCURRY
STOCKLAND FORSTER
LAKES ESTATE
FORSTER KEYS
ONE MILE
WALLIS LAKE
TASMAN SEA

APPENDIX B

MANDATORY ACCESS COMPLIANCE REQUIREMENTS

B1 ACCESSIBLE CARPARKING

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

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

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

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

B2 EXTERNAL PATHWAYS AND WALKWAYS

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

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

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

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

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

B3 KERB RAMPS

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

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

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

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

B4 STEP RAMPS

The configuration of the step ramps to comply with the requirements of AS1428.1, Clause 10.6.
Maximum gradient of the step ramp is to be 1:10 and maximum length to be 1900mm (providing a maximum height of 190mm).
Provide landings at the top and bottom of the step ramp to comply with AS1428.1, Clause 10.8.2.

Step ramp to be enclosed on both sides (minimum height 450mm) or a kerb and handrail needs to be installed. Where a kerb is to be installed, the height of kerb rails is to be less than 65mm or greater

than 150mm above the finished surface level of the ramp. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.

B5 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.

B6 PEDESTRIAN CROSSINGS

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

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

B7 THRESHOLD RAMPS

Threshold ramps are to comply with AS1428.1 (2009), Clause 10.5.

Threshold ramps are to have a maximum rise of 35mm, maximum length of 280mm and maximum gradient of 1:8.

Threshold ramps to be located within 20mm of the door leaf that it services.

B8 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.

B9 TACTILE INDICATORS AT THE BUILDING ENTRANCE

BCA Clause 3.8 (a) (v) states that for a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching – in the absence of a suitable barrier – an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building…if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4.

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

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

B10 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.

B11 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.

B12 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.

B13 SIGNAGE

The BCA has requirements for Braille and tactile signage within Specification D3.6. This provides information for the provision of statutory signage
Braille and tactile signage is required to be provided throughout any building required to be made accessible in accordance with BCA specification D3.6 and AS1428.1 (2009) and must identify:

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

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

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

Placement of signage should be considered at the following locations:

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

B14 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.

B15 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.

B16 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.

B17 PLATFORM LIFTS – LOW RISE

The BCA has limitations for the use of this type of lift. They must not travel more than 1m. Confirmation should be sought from the manufacturers to confirm compliance with AS1735.16 prior to installation.

Basic access requirements for Part 16 lifts are as follows (BCA Table E3.6a).

- Car size should be a minimum of 1100x1400mm to accommodate a wheelchair.
- Clear opening of the lift door to be minimum 900mm.
- All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.

B18 PLATFORM LIFTS - OTHER THAN LOW RISE

The BCA has limitations for the use of this type of lift. They must not travel more than 2m when unenclosed or 4m when enclosed.

Confirmation should be sought from the manufacturers to confirm compliance with AS1735.16 prior to installation.

- Basic access requirements for Part 16 lifts are as follows (BCA Table E3.6a).
- Car size should be a minimum of 1100x1400mm to accommodate a wheelchair.
- Clear opening of the lift door to be minimum 900mm.
- Handrail complying with the provisions for a mandatory handrail in AS1735.12.
- All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.

B19 STAIRWAY PLATFORM LIFTS

The BCA has limitations for the use of this type of lift .It must not:

- Be used to serve a space in a building accommodating more than 100 persons,
- Be used in a high traffic public use areas, or
- Be used where it is possible to install another type of passenger lift, or
- Connect more than 2 storeys

Stairway platform lifts must comply with AS1735.7. When in the folded position, it must not encroach on the minimum width of a stairway required by D1.6.

B20 ESCALATORS

Escalators do not form a part of the accessible path of travel within the meaning of AS 1428.1 (2009). However, they are subject to BCA requirements with regard to the provision of tactile indicators. TGSIs to be provided at the top and bottom of escalators to be setback 300±10mm from the moving handrail and extend a depth of 600-800mm per AS 1428.4.1 (2009).

B21 TRAVELATORS

Travelators do not form a part of the accessible path of travel within the meaning of AS 1428.1 (2009). However, they are subject to BCA requirements with regard to the provision of tactile indicators. TGSIs to be provided at the top and bottom of travelators to be setback 300±10mm from the moving handrail and extend a depth of 600-800mm per AS 1428.4.1 (2009).

B22 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.

B23 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.

B24 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.

B25 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.

B26 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. Door are not to swing into circulation spaces.

APPENDIX C

BEST PRACTICE RECOMMENDATIONS

E1 FIRE EGRESS FOR PEOPLE WITH DISABILITIES

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

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

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

E2 RECEPTION COUNTERS

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

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

E3 SEATING TO PUBLIC AREAS

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

E4 SIGNAGE AND WAYFINDING

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

The development of a 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.

E5 ACCESS CONTROLLED ENTRIES TO CAR PARKS

Where an entry to a car park is access control, the access or intercom pedestal should be position so that it is accessible by a driver who uses a wheelchair. The access /intercom pedestal to be positioned in accordance with AS2890.6:2009 Appendix A4.

E6 DEPTH OF DOOR RECESS

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

E7 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.

E8 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.

E9 LOCKERS

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

E10 FURNITURE HARDWARE

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

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

E11 LIGHTING AND GLARE

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

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