

# Access Review

Loreto Normanhurst  
Boarding House  
Report Issue 4  
17/12/18



## Contents

## Contents

3	Introduction
6	Context for Planning & Design
15	Design Review & Recommendations
20	Recommendations
25	Conclusion

Document Author: J Barling

Reviewed by: R Thompson

### Document History:

Issue 1 (Draft): 07/12/18

Issue 2: 11/12/18

Issue 3: 13/12/18

Issue 4: 17/12/18



## Introduction

## Introduction

---

### **State Significant Development Application (Concept Proposal and Detailed Stage 1 works)**

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This application is SSD by way of clause 8 and schedule 1 under *State Environmental Planning Policy (State and Regional Development) 2011* on the basis that the development is for the purpose of an existing school and has a Capital Investment Value of more than \$20 million.

Specifically, this application relates to a staged SSDA within the meaning of Section 4.12 of the EP&A Act, with this application being the Concept Proposal for a new site wide masterplan for the existing Loreto Normanhurst School at 91 – 93 Pennant Hills Road, Normanhurst. In addition, consent is also sought for the Stage 1 detailed design works for a new on campus student boarding facility, landscaping works, and some demolition works to the buildings between Mary Ward and existing dining room building and associated works to make good existing.

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project by DPE, ref no SEAR 8996 issued on 12 January 2018.

This access review report has been prepared to ensure the proposed boarding house development and landscaping will be capable of addressing the requirements for access by staff, students and visitors with a disability or who are older, in accordance with the Disability (Access to Premises - Buildings) Standards 2010, Parts D3, E3.6 and F2.4 of the Building Code of Australia 2016 (BCA) and Australian Standards on Access and Mobility.



## Introduction

## Background

---

### Need for a Campus Masterplan

Loreto Normanhurst is an independent, Catholic day and boarding school for girls from Years 5 to 12. The existing school campus was established in 1897 and has evolved in an organic and ad-hoc manner across the span of 120 years.

A new campus wide planning approach offers the opportunity to strategically review and plan for the campus' future in a sustainable and efficient manner such that the campus' unique aesthetic and ecological values are best preserved. The preparation of a campus wide masterplan is also consistent with the School's 'Loreto Normanhurst 2016 - 2020 Strategic Plan' which identified the need for a broader strategic plan to coordinate renewal and orderly development in a feasible and staged manner.

### Early Learning Centre

A separate DA (D/1227/2018) has been submitted to Hornsby Shire Council on 23 November 2018 for an 80 place Early Learning Centre (ELC) building and the DA is currently under assessment. The ELC building is consistent with the overall concept masterplan, and was prepared concurrently with the final preferred campus masterplan. However, to meet the School's operational timeframe requirements for the ELC, a separate application was seen to be best pathway to allow the building to be built, fitout and operational by 2021.



## Introduction

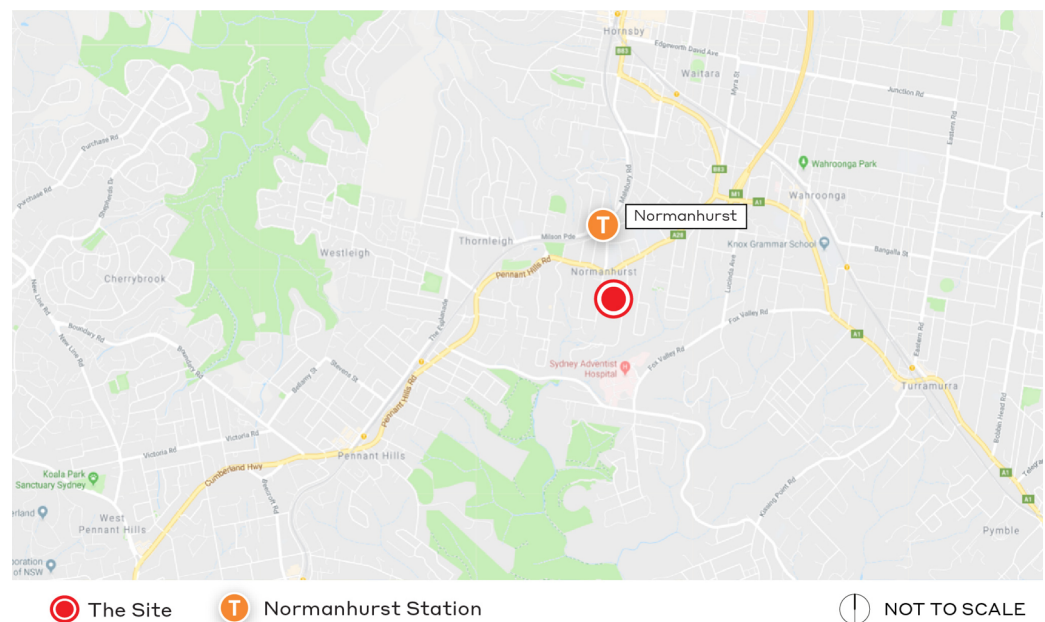
### The Site

Loreto Normanhurst is located within the suburb of Normanhurst on Sydney's Upper North Shore approximately 3km south of Hornsby and 25km north of Sydney CBD. The school is located in the local government area of Hornsby Shire Council, approximately 750m south of the Normanhurst Railway Station. The locational context of the site is illustrated at **Figure 1**.

The site comprises the existing campus grounds of the Loreto Normanhurst school at 91 – 93 Pennant Hills Road, Normanhurst. The northern part of the site accommodates much of the school's existing built form, while the rear extent consists of the school's sporting fields, and a portion of largely undeveloped land covered in remnant vegetation.

The campus itself is bound by Pennant Hills Road (to the north), Osborn Road (to the west) and Mount Pleasant Avenue (to the east). Detached dwellings on individual residential lots about the southern boundary of the site. An aerial photograph of the site is provided at **Figure 2** below.

**Figure 2** provides an aerial map of the site and its immediate surrounds.



**Figure 1 – Loreto Normanhurst Campus Location Context Plan**  
Source: Ethos Urban



# Introduction

## The Site (continued)

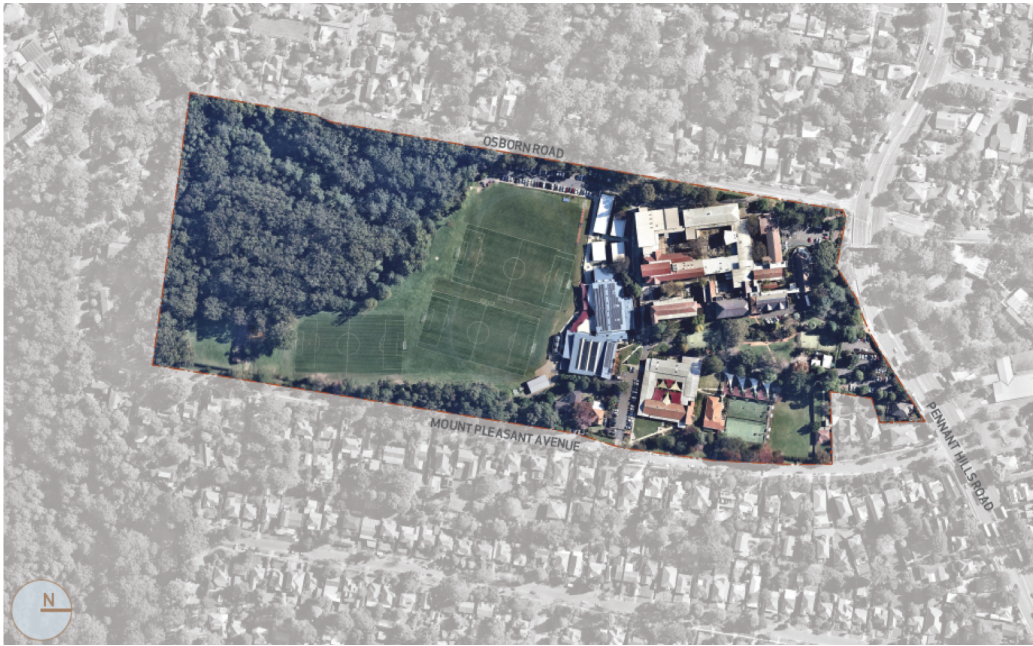


Figure 2 – Aerial Map of the Loreto Normanhurst Campus  
Source: AJ+C Architects

### Legal Description and Ownership

Table 1 Legal Description

Address	Lot	Plan
16 Mount Pleasant Avenue	Lot 5	DP 1218765
	Lot 16	DP 6612
30 – 62 Mount Pleasant Avenue	Lots 20 – 23 and 25 – 36	DP 6612
	Lot 1	DP 34834
91 – 93 Pennant Hills Road	Lot 1	DP 114580
	Lot 3	DP 1217496
	Lot 1 – Lot 3	DP 1218765
	Lot B	DP327538
24 – 28 Mount Pleasant Avenue	Lot 1	DP 809066
6 Mount Pleasant Avenue	Lot C	DP 366271
14 Mount Pleasant Avenue	Lot 4	DP1218765
89 Pennant Hills Road	Lot 1	DP136156



## Introduction

## Overview of Proposed Development

---

The application sets out a new campus masterplan for the existing school campus that will guide and shape the development of the school campus for the next 30 years. This SSDA also includes detailed plans for the first stage of the concept proposal (Stage 1 works). Accordingly, consent is sought for the following:

- The concept masterplan, including:
  - Establishment of 10 new building envelopes across the site for education and ancillary uses including student accommodation;
  - Increase of the student number cap by 850 students from 1150 to 2000 students;
  - The open space and landscape design;
  - Pedestrian and circulation arrangements, and
  - Associated car parking provision.
- Detailed consent for Stage 1 works, being:

### **Stage 1 DA (A)**

- Construction of a new 3 to 6-storey boarding house to accommodate up to 216 boarders.
- Excavation works to accommodate partially underground carpark and dock facilities within the proposed footprint of the new boarding house facility;

### **Stage 1 DA (B) (Mary Ward Wing; Loading Dock)**

- Demolition works to buildings between Mary Ward and existing dining room building and associated works to make good existing;
- Landscaping works and removal and replacement of approximately 50 trees of varying significance; and
- Augmentation of connection of services and utilities infrastructure.



## Introduction

### Background to Access Review

---

This review of the design documents addresses the requirements for access by staff, students and visitors with a disability or who are older, to the proposed new Loreto Normanhurst Boarding House, located at Mount Pleasant Avenue, Normanhurst.

The review addresses compliance with the Disability (Access to Premises - Buildings) Standards 2010, Parts D3, E3.6 and F2.4 of the Building Code of Australia 2016 (BCA) and Australian Standards on Access and Mobility.

The key issue in the provision of appropriate access to and within the new building is the provision of a continuous accessible path of travel:

- (i) from the main points of a pedestrian entry at the allotment boundary;
- (ii) from another accessible building connected by a pedestrian link;
- (iii) from accessible visitor parking to principal building entrances; and
- (iv) to and within areas normally used by the occupants.

We have reviewed the drawings listed to assess the level of accessibility and compliance with the relevant codes, standards and legislation. The designs have been assessed to ensure that equitable and dignified access for people with disabilities can be provided.

In carrying out an accessibility assessment, the main objective is to ensure access is provided through the provision of accessible facilities and continuous paths of travel to and within all appropriate areas of the building.





## Introduction

## Accessibility Requirements

---

The Building Code of Australia 2016 (BCA) in conjunction with the Disability (Access to Premises - Buildings) Standards 2010 (Premises Standards) apply to new buildings and existing buildings that undergo refurbishment.

The Premises Standards apply to any new part, and any affected part, of an existing building. A part of a building is a new part of the building if it is an extension to the building or a modified part of the building about which an application for approval for the building work is submitted to the competent authority in the State or Territory where the building is located. The definition of 'affected part' of a building is limited to the path of travel between (and including) the principal pedestrian entrance and the new work.

Under the Premises Standards, access must be provided, to the degree necessary, to enable people to approach the building from the road boundary and from any accessible carparking spaces associated with the building; approach the building from any accessible associated building; access work and public spaces, accommodation and facilities for personal hygiene; and to enable identification of access ways at appropriate locations which are easy to find.

Under the BCA 2016 and Premises Standards table D3.1 Requirements for access for people with a disability, access to this new building (class 9b) is required to and within all areas normally used by staff, students and visitors.



## Introduction

## Proposed Work

---

The proposed building includes:

### Stage 1 DA (A)

#### Basement 2:

- 23 parking spaces (including one accessible)
- Back of house
- Hyd Room
- Lift access

#### Basement 1:

- Access to oval
- 19 parking spaces
- Laundry
- Comm & Hyd Room
- Bathroom
- Gym
- Bathroom adjacent gym
- Lift access

#### Level 01:

- Dining Hall and Outdoor dining area
- Bathrooms adjacent dining hall
- Storage
- Kitchen with cool and dry store
- Hyd Room, garbage room
- Common spaces
- Student accommodation
- Staff sleepover
- 2 x banks of toilets & showers in accommodation area

#### Level 02:

- Large communal space
- Study / meeting room
- Outdoor area with fire pit
- Bathrooms adjacent communal space
- Student accommodation (2 bed large and 2 bed small rooms)
- 3 x apartments (lower level)
- 1 x bank of toilets & showers in accommodation area



## Introduction

## Proposed Work

---

### Level 03:

- Principal entrance link from school and Mt Pleasant Avenue
- Outdoor terrace at entrance
- Reception
- Admin
- Bathrooms adjacent family lounge
- Student accommodation (2 bed small, 2 bed large, 4 bed rooms)
- Common spaces
- Wellness Centre
- 3 x apartments (upper level)
- 2 x banks of toilets & showers in accommodation area

### Level 04:

- Student accommodation (2 bed small, 2 bed large, 4 bed and 1 bed rooms)
- Common spaces
- 2 x staff sleepovers
- 5 x banks of toilets & showers in accommodation area

### Level 05:

- Student accommodation (1 bed rooms)
- Common spaces
- Outdoor terrace
- 1 x staff sleepover
- 3 x banks of toilets & showers in accommodation area

### Roof:

- Plant

### Stage 1 DA (B)

#### Landscaping around Mary Ward Building:

- Demolition works to buildings between Mary Ward and existing dining room building and landscaping these areas



## Context for Planning & Design

### Legislation & Standards

---

The new work is subject to access provisions in the following documents:

- Disability (Access to Premises - Buildings) Standards 2010
- The Building Code of Australia (BCA) 2016 parts D3, F2.4 and E3.6
- AS1428.1 (2009) (Incorporating Amendment No 1): Design for access and mobility Part 1: General requirements for access – New building work.
- AS1428.2 (1992) Design for access and mobility Part 2: Enhanced and Additional requirements - Buildings and facilities
- AS1428.4 (2009) (Incorporating Amendment No 1): Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment -tactile ground surface indicators
- AS1735.12 (1999) Lifts, escalators and moving walks Part 12: Facilities for persons with disabilities AS1428.4 (1992) Design for access and mobility. Part 4: Tactile ground surface indicators for the orientation of people with vision impairment
- AS2890.6 (2009) Parking Facilities - Off-street parking for people with disabilities
- AS3745 (2009) Planning for Emergencies in Facilities (referenced)
- AS1428.5 (2010) Design for access and mobility Part 5: Communications for people who are deaf or hearing impaired (referenced)
- Australian Human Rights Commission Guideline on the Application of the Premises Standards (2013)
- The Disability Discrimination Act 1992 (DDA)
- Disability Standards for Education 2005



## Context for Planning & Design

### Legislation & Standards

---

#### DDA

The objectives of the Disability Discrimination Act 1992 (DDA) – section 23, focus on the provision of equitable, independent and dignified access to services and facilities for people with mobility, sensory and cognitive disabilities. The DDA covers existing premises, including heritage buildings, those under construction and future premises. It extends beyond the building itself to include outdoor spaces and within, to address furniture, fittings and practices.

#### Premises Standards

Disability (Access to Premises - Buildings) Standards (Premises Standards) 2010 which commenced on 01 May 2011, has been incorporated into the BCA (2016) to ensure that access provisions for people with disabilities more fully meet the intent of the DDA.

The Premises Standards apply to any new part, and any affected part, of an existing building. A part of a building is a new part of the building if it is an extension to the building or a modified part of the building about which an application for approval for the building work is submitted, on or after 1 May 2011, to the competent authority in the State or Territory where the building is located.

#### BCA

The Building Code of Australia (BCA)(2016) applies to new buildings and existing buildings that undergo refurbishment. In this report the description of the level of accessibility throughout the new work is generally measured against the Deemed-to-Satisfy Provisions of the BCA, in particular Parts D3 and H2.

#### AS1428 – Standards for Access

The Australian Standards design for access and mobility are a suite of standards relating to the inclusion of features in the built environment that improve access and mobility for people with a disability.

AS1428.1 (2009) sets out minimum requirements for design of buildings and facilities, while AS1428.2 includes enhanced and additional requirements that are not covered in AS1428.1, such as street furniture and reach ranges.

AS1428.4.1 (2009) Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment primarily details the requirements for the application of tactile ground surface indicators (TGSIs).

#### Disability Standards for Education 2005

The objects of these standards are:

- to eliminate, as far as possible, discrimination against persons on the ground of disability in the area of education and training; and
- to ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law in the area of education and training as the rest of the community; and
- to promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.

Reasonable adjustment is an adjustment, measure or action (or a group of measures or actions) taken by an education provider that has the effect of assisting a student with a disability.



## Context for Planning & Design

### Management Strategies

---

In the existing facilities and proposed new building work it is important, within the limitations of the existing structures, to provide general paths of travel, circulation spaces and accessible facilities, within areas not exempt by the BCA part D3.4, to meet the intent of the Disability Discrimination Act.

In addition to accessible paths of travel, accessible parking and accessible sanitary facilities, it will be necessary to develop operational management strategies that meet the proposed intention to provide equipment and adapt areas within the centre to meet the requirements of specific individuals with a disability.

Operational management strategies are required to meet the specific requirements of visitors, students and staff with a disability whose individual requirements cannot be addressed within the base buildings and existing building facilities. An operational management strategy acknowledges the need to meet full accessibility compliance through the provision of policy strategies. A design that has the potential to be modified as required to suit individuals with a disability is desirable.

Ongoing development of operational management strategies are recommended for the following:

- emergency egress for people with sensory and mobility impairment
- modification of individual work areas to meet individual staff and student requirements and allocation of suitable accessible bedrooms as required

### Documentation

---

- accessible parking allocation and management of the link into the school, especially during events
- facilitation of use of alternate accessible outdoor areas when use of inaccessible spaces is proposed
- development of a network of accessible pathways throughout the school through existing areas and as the masterplan is developed, through proposed new areas

This assessment is based on discussion with the design team and review of the following architectural documentation prepared by AJ+C Architects, issued to funktion on 17/12/18:

DA2001 Basement 2 Issue 2

DA2002 Basement 1 Issue 2

DA2003 Level 01 Issue 2

DA2004 Level 02 Issue 2

DA2005 Level 03 Issue 2

DA2006 Level 04 Issue 2

DA2007 Level 05 Issue 2

DA2008 Roof Plan Issue 2

DA3101 Elevations Sheet 1 Issue 2

DA3102 Elevations Sheet 2 Issue 2

DA3201 Sections Sheet 1 Issue 2

DA3202 Sections Sheet 2 Issue 2

Interim Landscape Masterplan (prepared by Oculus)



## Design Review

### Accessibility Assessment

## Accessible Paths of Travel

---

### Overview

The building provides student accommodation (one, two and four bed rooms), as well as common areas and shared bathrooms. Each level that includes student accommodation has a staff sleepover room. The dining hall is proposed to also be used separately to the rest of the building for events. Three apartments are located centrally within the building, for boarding house staff. It is our understanding these staff apartments are not subject to the deemed to satisfy access requirements in the Premises Standards due to the proposed job descriptions and responsibilities of boarding house staff.

To meet the Access to Premises Standards Part 2.1 and BCA D3.2, accessible paths of travel are proposed to be provided from the allotment boundary to the principal pedestrian entrance of the building and linking to all areas of the building. The following pathways provide accessible links to and through the building:

- The existing accessible pedestrian entrance at the Mount Pleasant Avenue allotment boundary via the existing footpath
- two lifts linking the entrance level with all levels of the building
- the lifts provide a pedestrian link to the adjacent external areas including the oval (on basement 2 level) from the main school campus (on ground floor) and landscaped spaces on other levels

### Parking

Parking is proposed for 42 cars across basement 2 and basement 1 level. The parking is intended for staff / students only. Visitor parking is provided externally and onstreet parking on Mount Pleasant Avenue.

To meet the Premises Standards clause D3.5 and BCA 2016 D3.5, there is one designated accessible car parking space indicated in the carpark.

To meet the Premises Standards D3.5, accessible car parking spaces are proposed to have a layout and dimensions to meet AS2890.6.

Accessible pedestrian paths are indicated to link the accessible car parking spaces with the principal entrance – via the lifts.

### Accessways Throughout the Building

To meet the requirements of the Premises Standards and BCA part D3.1, continuous accessible paths of travel meeting the functional requirements of AS1428.1 (2009) are proposed to and throughout the new building via the provision of lift access linking all levels of the building and circulation space at corridors, lift lobbies and doors.

### Accessways Linking to Adjacent Buildings

Level access to / from the adjacent school campus is proposed to be provided via the outdoor terrace adjacent the principal entrance.



## Design Review

### Accessibility Assessment

## Vertical Links and Landscaping

---

### Stairway

Fire isolated stairs are proposed as follows:

- Western side, linking basement 2 with basement 1
- Northern side, linking basement 2, 1 and Level 01
- Southern side, linking basement 1 to Level 05
- Centrally (south), linking basement 1 to Roof
- Centrally (south), linking Level 02 to Level 05
- Northern side, linking Level 03 to Roof
- Centrally (north), linking Level 03 to Level 05

General use stairs are proposed as follows:

- In the dining hall, linking Level 01 to Level 02
- Adjacent the large communal space, linking Level 02 and Level 03
- External to the building, in the landscaped areas

### Lifts

Two lifts are proposed to link all levels of the building. The lifts are proposed to have dimensions and door clearance that complies with BCA D3.3 (b) and E3.6.

### Landscaping

Landscaped areas are proposed adjacent the building which consist of a series of breakout spaces connected by stairs. The landscaped areas do not provide an accessible path of travel throughout via accessible outdoor vertical links, however there are accessible outdoor spaces which can be accessed via the lift on Levels Basement 1 (outdoor dining terrace), Lower Ground (fire pit area) and ground floor (entrance terrace area). The outdoor dining terrace links to outdoor seating steps overlooking the oval.

The accessible path of travel to the oval is proposed to be through the boarding house building, via the proposed lifts.

The Stage 1 SSD submission includes the boarding house and the space around the Mary Ward Building. This involves demolition of building around Mary Ward and landscaping those areas.

Due to the existing significant level changes in the area around the Mary Ward Building, the proposed new landscaped area does not include an accessible path of travel throughout.

As the masterplan is developed, accessible pathways acilitation of use of alternate accessible outdoor areas when use of inaccessible spaces is proposed





## Design Review

### Accessibility Assessment

## Student Accommodation

---

Student accommodation and sanitary facilities are provided as follows:

Level 01:

- 5 x 2 bed small rooms
- 5 x 2 bed large rooms
- 2 x banks of toilets & showers
- 1 x unisex accessible sanitary facility with shower

Level 02:

- 5 x 2 bed small rooms
- 5 x 2 bed large rooms (including one accessible room)
- 1 x bank of toilets & showers
- 1 x unisex accessible sanitary facility with shower

Level 03:

- 5 x 2 bed small rooms (including one accessible room)
- 6 x 2 bed large rooms
- 5 x 4 bed rooms
- 2 x banks of toilets & showers
- 1 x unisex accessible sanitary facility with shower

Level 04:

- 5 x 2 bed small rooms (including one accessible room)
- 9 x 2 bed large rooms (including one accessible room)
- 14 x 4 bed rooms (including one accessible room)
- 8 x 1 bed rooms
- 5 x banks of toilets & showers
- 2 x unisex accessible sanitary facilities with shower

Level 05:

- 42 x 1 bed rooms (including one accessible room)
- 3 x banks of toilets & showers
- 1 x unisex accessible sanitary facility with shower



## Design Review

### Accessibility Assessment

## Accessible Facilities

---

### Sole Occupancy Units

The total proposed number of rooms (sole occupancy units) is 114. A total of 6 accessible rooms, representative of the range and location of rooms available, is proposed, to meet the Premises Standards and BCA Table D3.1. The rooms are proposed to include circulation space at the doors and around fixed furniture to meet AS1428.1.

### Sanitary Facilities

To meet The Premises Standards and BCA F2.4, in this class of building (class 3), the minimum number of unisex accessible sanitary compartments is not less than one at each bank of sanitary compartments provided in common areas. Due to the high number of banks of toilets, a performance solution is proposed to meet the BCA performance requirement FP2.1.

FP2.1 states that - suitable sanitary facilities for personal hygiene must be provided in a convenient location within or associated with a building, to the degree necessary, appropriate to—

- (a) the function or use of the building; and
- (b) the number and gender of the occupants; and
- (c) the disability or other particular needs of the occupants.

The proposed performance solution (which will be documented in full during design development) is the provision of at least one unisex accessible sanitary facility with shower per floor, located in close proximity to the accessible sole occupancy unit.

On levels with more than one bank of toilets and showers within the student accommodation areas (basement 1, ground, Level 01 and Level 02), one shower and one cubicle suitable for a person with an ambulant disability are proposed to be provided as follows:

Level 01: southern bank of facilities

Level 03: southern bank of facilities

Level 04: Southern and one of the central banks of facilities

Level 05: Central and northern bank of facilities.

These facilities will supplement the accessible sanitary facilities and provide the potential for ease of use for students who may have a temporary injury or sensory impairment but may not necessarily need a fully wheelchair accessible sanitary facility.



## Design Review

### Accessibility Assessment

## Sanitary Facilities in Common Areas

---

### Other Common Area Sanitary Facilities

To meet the Premises Standards and BCA (2016) part F2.4 the building is proposed to include the following sanitary facilities in the other common areas:

#### Basement 1:

- A unisex accessible sanitary facility with shower in the gym
- A unisex sanitary compartment suitable for a person with an ambulant disability in the central facilities.

#### Level 01:

- A unisex accessible sanitary facility with shower in the toilets adjacent the dining hall.
- The toilets adjacent the kitchen are considered to be exempt from access requirements as they are in an exempt area in accordance with BCA D3.4

#### Level 02:

- A unisex accessible sanitary facility in the common toilets adjacent the communal space

#### Level 03:

- A unisex accessible sanitary facility in the common toilets adjacent the family lounge.
- A unisex sanitary compartment suitable for a person with an ambulant disability.



## Design Review

### Recommendations

#### Accessible Paths of Travel to the Centre

---

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. A minimum 1000mm unobstructed path width and 2m vertical clearance (AS1428.1 clause 6.2 and 6.3) or provision of a suitable barrier.
- ii. Circulation space for a wheelchair to turn - 90° turn minimum 1500mm width x 1500mm length; 180° turn minimum 1540mm width x 2070mm length (clause 6.5 and figures 4 and 5).
- iii. Slip resistant surfaces on access ways that are traversable by people who use a wheelchair and those with an ambulant or sensory disability.
- iv. The ground surface abutting the sides of the walkway to provide a firm and level surface of a different material to that of the walkway at the same level of the walkway; follow the grade of the walkway and extend horizontally for a minimum of 600mm unless one of the following is provided:
  - a kerb
  - a kerb rail and handrail
  - a wall not less than 450mm high
  - Landings at intervals not exceeding 15m (1:20 gradient); 25m (1:33 gradient)
  - A constant gradient between level landings.
  - A crossfall no steeper than 1:40; bitumen surfaces may include a camber or crossfall no steeper than 1:33.
- v. Kerb ramps to provide a maximum rise of 190mm, length no greater than 1520mm and gradient not steeper than 1:8, with a 1500mm landing at the top where there is a change of direction required.
- vi. In ongoing design, the designated accessible parking space is to include dimensions and a layout to meet the requirements of AS2890.6 (2009) and identification signage. This includes a dedicated (non-shared) space with dimensions 2.4m wide x 5.4m long; a shared area on one side of the dedicated space 2.4m wide x 5.4m long; a shared area at the end of each space 2.4m x 2.4m and a 1200mm high bollard located in the centre and 800mm from the front edge of the shared space.
- vii. Ensure in ongoing design that parking space related walking and wheelchair unloading areas comprise a slip-resistant, firm plane surface with a fall not exceeding 1:40 in any direction or 1:33 if the surface is a bituminous seal.
- viii. As the masterplan is developed, it is recommended that consideration be given to the development of a network of accessible pathways throughout the school.



## Design Review

### Recommendations

#### Accessible Paths of Travel Through the Centre

---

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. All doorways for public and staff areas (excluding any exempt areas meeting the BCA part D3.4) are to include a clear opening at the active leaf (minimum 850mm) and circulation spaces to meet the requirements of AS1428.1 (2009) clauses 13.2 and 13.3 and figures 31 - 34.
- ii. To meet the BCA part D3.12 (2016), unframed glazed doors and walls are to be provided with visual indicators to fully comply with AS1428.1 clause 6.6 (2009)
- iii. Doorways are required to be provided with luminance contrast to meet the requirements of AS1428.1 (2009) clause 13.1.
- iv. The force required to activate door closers, glazed or pivot action doors meet as closely as possible the requirements of AS1428.1 (2009) clause 13.5.2(e).
- v. All door handles and related hardware shall allow the door to be unlocked and opened with one hand and be such that a hand of a person who cannot grip will not slip from the handle during the operation of the latch as per AS1428.1 (2009) clauses 13.5.1 - 3 and figures 35 – 37.
- vi. To meet the BCA part D3.3 (c), corridors include circulation space for a wheelchair to turn within 2m of the end of a passage way where it is not possible to continue traveling along the accessway (90° minimum 1500mm width x 1500mm length; 180° minimum 1540mm width x 2070mm length) to comply with AS1428.1 (2009) clause 6.5 and figures 4 and 5; in particular the corridor outside the general office in the admin building.
- vii. To meet the intent of the DDA, provide an accessible height section of counter at the reception desk – 850mm AFFL, to meet AS1428.2 clause 24.1.1.
- viii. Carpet pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.



## Design Review

### Recommendations

#### Vertical Links

---

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. To meet the BCA (2016) part D3.3 (a) stairways, (except for stairways in exempted areas and fire isolated stairs) are required to comply with AS1428.1 clause 11 and BCA D3 to include handrails, highlighting on step nosing and tactile ground surface indicators.
- ii. To meet BCA D3.3 and AS1428.1 clause 11, ensure in ongoing design the general use stairs include handrails on both sides that include a 300mm horizontal extension at the top and bottom set back by a minimum of 600mm so that the handrail does not protrude into the transverse path of travel as per AS1428.1 (2009) figure 26(A); nosing profiles which include 50-75mm wide solid slip resistant highlighting strips on the tread at the nosing that includes a minimum luminance contrast of 30% with the tread to comply with AS1428.1 figures 27(a) and (b); tactile ground surface indicators (tgsi) in a band 600mm deep set back 300mm from the top and bottom tread and opaque risers.
- iii. To meet the BCA (2016) part D3.3 (a) fire isolated stairs must comply with AS1428.1 clause 11 (f) and (g).
- iv. Fire stair handrails should also meet BCA Clause D2.17(a)(vi). This means the handrail(s) is required to be continuous and comply with Clause 12 of AS1428.1 including an offset riser so that the height of the handrail is consistent throughout the stairway and landing; and handrail endings in accordance with AS1428.1 figure 26(B).
- v. Ensure in ongoing design, to comply with BCA D3.3 (b) and E3.6 the lift is one of the types identified in Table E3.6a, and includes the following features in accordance with AS1735.12:
  - a. A handrail complying with the provisions for a mandatory handrail in AS 1735.12 clause 5.3
  - b. Minimum clear door opening of 900mm as in AS 1735.12 section 2
  - c. Passenger protection system complying with AS 1735.12 clause 4.2
  - d. Lift car and landing control buttons complying with AS 1735.12 section 7 for Braille, tactile and luminance contrast
  - e. Lighting complying with AS 1735.12 section 10
  - f. Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received



## Design Review

### Recommendations

#### Sanitary Facilities

---

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. Ensure in ongoing design that combined accessible shower and sanitary facilities include a layout, circulation space (door, WC pan, basin) and fittings to meet the requirements of AS1428.1 clause 15.
- ii. Provide left and right-handed layout accessible sanitary facilities as evenly as possible.
- iii. Ensure that in ongoing design cubicles for people with ambulant disabilities includes features complying with AS1428.1 clause 13.4 and 16 and figures 34 and 53 (signage, entry airlock and cubicle door circulation, WC pan, grabrails, toilet paper dispenser, clothes hook).
- iv. We recommend that the ambulant shower cubicles include a minimum dimension of 900mm x 900mm, a grabrail, hand held shower and fold down bench in the dry area.



## Design Review

### Recommendations

#### Wayfinding, Emergency Egress, Hearing Augmentation

---

In ongoing design, to comply with the BCA and AS1428.1 2009 include the following:

- i. Development of individual evacuation plans for staff or students with a disability is recommended as part of the building operational management strategy.
- ii. To meet AS3745 (2009) Planning for Emergencies in Facilities we recommend in ongoing design that consideration be given to the inclusion of suitable emergency evacuation devices for people to be carried down stairs.
- iii. In ongoing design, if an inbuilt amplification system is to be installed, BCA (2016) part D3.7 requires a hearing augmentation system to be provided where an inbuilt amplification system, other than one used for emergency warning is installed in a conference room or meeting room in a Class 9B Building. If required, an induction loop must be provided to not less than 80% of the floor area of the room.
- iv. Signage at exits compliant with the BCA Part D3.6





## Conclusion

## Conclusion

---

Having reviewed the listed drawings, it is our opinion that at this stage of the design, the access provisions for people with physical and sensory disabilities in the proposed new work can comply with the functional accessibility requirements of BCA (2016) sections D3, E3.6 and F2.4; AS1428.1, AS1735.12, AS2890.6 and the Disability (Access to Premises - Buildings) Standards 2010 for accessibility and equity.

With the development and implementation of the recommended operational management strategies, the provision of access for people with a disability in the proposed new Loreto Normanhurst Boarding House at Mount Pleasant Avenue, Normanhurst, can provide continuous accessible paths of travel and the equitable provision of accessible facilities to provide inclusive design to meet the anticipated requirements of staff, students and visitors.

I certify that I am an appropriately qualified and competent person practising in the relevant area of work. I have recognised relevant experience in the area of work being reviewed. My company is holding appropriate current insurance policies.

Jen Barling | Access + Inclusion Consultant

Qualifications: Bachelor of Applied Science (Occupational Therapy) (1999)

Affiliations: Accredited with Association of Consultants in Access, Australia (No.300)

Registered Occupational Therapist (no: OCC0001724072)