

# **RIDBC**

Centre of Excellence

**Access Review** 

8 October 2020



REPORT REVISIONS			
Date	Version	Drawing No / Revision	
08.09.20	1 (DA)	200925_19181_RIDBC_Pre-SSDA Drawing Set	
06.10.20	2 (DA)	RIDBC Centre of Excellence_SSDA - Architectural Master Set	
08.10.20	2a (DA)	RIDBC Centre of Excellence_SSDA - Architectural Master Set	

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# 1. Executive Summary

This Access Review Report is a key component in the design application phase for the proposed RIDBC Centre of Excellence located within the grounds of Macquarie University. It is reviewed against the relevant Australian Codes and Standards under the Commonwealth Disability Discrimination Act (DDA).

Morris Goding Access Consulting has prepared the Access Report to provide advice and strategies to maximise reasonable provisions of access for people with disabilities. The aim of the review is to ensure that the accessibility provisions comply with the relevant statutory requirements, and consideration of a higher degree of accessibility to meet the intent of the DDA of inclusive, dignified and equitable access.



#### 2. Introduction

#### 2.1 Background

The proposed development generally seeks consent for the construction and operation of the new purpose-built 1 to 3 storey (including basement level) Centre of Excellence across two interconnected pavilions at the corner of Culloden and Gymnasium Road within the MQU Campus. The development includes:

- Pre-School and School accommodation for up to 80 pre-school children and up to 120 school children in a single storey pavilion addressing Culloden Road; and
- The main RIDBC building (accommodating approximately 260 staff) of up to three storeys, including basement level:
  - · Public areas for staff and visitors;
  - RIDBC Renwick Centre classrooms (doubling also as conferencing facilities) and a business hub;
  - · Medical facilities for various clinical services; and
  - RIDBC Renwick Centre resource centre; use between RIDBC Renwick Centre staff, clinicians and pre-school / primary school teaching staff.

The proposed development falls under the following BCA classifications:

- Class 5 (Commercial / Office)
- Class 6 (Café)
- Class 7a (Carpark)
- Class 9b (School)

The general building access requirements for the above classifications are:

- 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 to and within all areas normally used by the occupants.

The requirements of this review are to:

- Review supplied drawings of the proposed development;
- Provide a report that will analyse the provisions of disability design of the development, and
- Recommend solutions that will ensure the design complies with the Disability Discrimination Act (DDA), Building Code of Australia (BCA), relevant Australian Standards.



#### 2.2 Objectives

This report seeks to ensure compliance with statutory requirements, and in addition, considers enhanced benchmark requirements set by the project. It considers the building user groups and attempts to deliver equality, independence and functional access for people with disability; inclusive of:

- People with a mobility impairment (ambulant and wheelchair);
- People with a sensory impairment (hearing and vision); and
- People with a dexterity impairment.

#### 2.3 Limitations

This report is limited to the accessibility provisions of the building in general. It does not provide comment on detailed design issues such as the internals of accessible toilets, ambulant toilets, fit-out, lift specification, slip resistant floor finishes, door schedules, hardware and controls, glazing, luminance contrast, stair nosing, TGSIs, handrail design, signage etc. that will be included in construction documentation.

#### 2.4 Statutory Requirements

The relevant statutory and regulatory requirements are:

- Federal Disability Discrimination Act (DDA).
- Disability (Access to Premises Buildings) Standards 2010.
- Building Code of Australia (BCA) Part D3, E3, F2.
- AS 1428.1:2009 General Requirement for Access.
- AS 1428.4.1:2009 Tactile Ground Surface Indicators.
- AS 2890.6:2009 Parking for People with Disabilities.
- AS 1735.12:1999 Lift Facilities for Persons with Disabilities.
- City of Ryde DCP 2014 Part:4.5 Macquarie Park corridor.

Additional advisory standards not currently referenced, and other relevant guidelines considered include:

- Universal Design Principles.
- Premises Standard Guideline V2 2013.
- Guide to the BCA 2019.
- AS1428.2:1992 Enhanced and Additional requirements.
- AS1428.4.1 Wayfinding Standard.
- AS3745:2010 Planning for Emergencies in Facilities (to assist with design strategies for provision for escape for people with disability that may require assistance).



# 3. General Access Planning Considerations

The Disability Discrimination Act 1992 (DDA) is a legislative law that protects the rights of all people. The Act makes disability discrimination unlawful and promotes equal rights, equal opportunity and equal access for people with disabilities. The Australian Human Right Commission is the governing body who control and enforce DDA compliance.

Nevertheless, building elements that provide insufficient accessible provisions for people with disabilities remain subject to the DDA. The improvement of non-compliant building elements and areas to meet current access requirements will mitigate the risk of a DDA complaint be made against the building owner.

Since the 1st of May 2011, the Commonwealth's Disability (Access to Premises – Buildings) Standards 2010 (DDA Premises Standards) apply to all new building works and to affected parts of existing buildings.

The requirements of the DDA Premises Standards (DDA Access Code) are mirrored in the access provisions of the BCA. New building work and affected parts must comply with the DDA Premises Standards and AS1428.1:2009 in the same manner as they would comply with the BCA by meeting deemed-to-satisfy provisions or by adopting an alternative solution that achieves the relevant performance requirements.

By utilising AS 1428 suite of Standards, the overall aim is to provide continuous accessible paths of travel to connect the proposed development to and through public domain areas and between associated accessible buildings in accordance with the DDA Access Code.

MGAC supports the use and consideration of universal design (UD) principles into the design to maximise access for all people. We will assist the design team to incorporate UD principles where possible within the project, while still meeting mandatory compliance requirements.

Universal design principles consider the needs of a broad range of people including older people, families with children and pushing prams, people from other cultures and language groups, visitors in transit and people with disability. By considering the diversity of users, the design will embed access into and within it, so that benefits can be maximised, without adding on specialised 'accessible' features that can be costly, visually unappealing and may perpetuate exclusion and potential stigma.

The seven key Universal design principles to consider in the on-going design include:

- Principle 1 Equitable Use

- Principle 2 Flexibility in Use

- Principle 3 Simple and Intuitive Use

- Principle 4 Perceptible Information

Principle 5 Tolerance for Error

Principle 6 Low Physical Effort

Principle 7 Size and Space for Approach and use.

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# 4. Ingress & Egress

#### 4.1 External Linkages

The BCA and the Premises Standards have requirements for external approaches. The key requirements are:

An accessible path of travel is required to be provided:

- From the main pedestrian entry points at the allotment boundary to all building entrances.
- Between accessible buildings (or parts of buildings).
- From accessible car parking spaces to the building entrance.

#### Assessment:

Capable of achieving compliance.

Accessible path from the allotment boundary to both building entrances is provided.

The path from the accessible carparking space to the building via a passenger lift is also provided and appear appropriate.

Confirm all details at further design stages.

#### 4.2 Entrances

The BCA and the Premises Standards have requirements for building entrances. The key requirements are:

- Access through no less than 50% of all entrances, including the principal pedestrian entrance.
- For buildings greater than 500msq, a non-accessible entrance must be located less than 50m from an accessible entrance.
- Doors to have a minimum 850mm clear opening width and compliant door circulation spaces.

#### Assessment:

Capable of achieving compliance.

Both entrances appear appropriate.

Confirm all details at further design stages.

#### Advisory:

Ramps, walkways and stairs should be provided in close proximity to any lift access. This provides choice of access and promotes inclusion in line with the DDA and UD principles.

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#### 4.3 Emergency Egress

The BCA and the Premises Standards have requirements for fire isolated stairs. The key requirements are:

- At least one continuous handrail at a consistent height compliant with AS1428.1, Clause 12
- Compliant nosing strip with appropriate luminance contrast.

Note that handrails will not comply (without vertical or raked sections) unless treads are offset at intermediate landings; or landing depth is increased. This detail should be considered at early design stages to avoid non-compliance at the construction phase.

#### Assessment:

Capable of achieving compliance.

All fire isolated stairways appear appropriate.

Confirm all details at further design stages.

#### Advisory:

Currently there are no mandatory requirements for the provision of fire egress for people with disability and remains an important issue and concern. We recommend consideration for an allocated wheelchair footprint (800 x 1300mm) within the fire isolated stairway, additionally, consideration of an accessible egress strategy with emergency evacuation plan is recommended.



### 5. Paths of Travel

#### 5.1 Circulation Areas

The BCA and the Premises Standards have requirements for accessible paths of travel. The key requirements are:

- A minimum of 1000mm clear path width be provided along an accessible path.
- A 1500 x 1500mm turning space be provided for a wheelchair to make a 90 degree turn.
- A 1540 x 2070mm turning spaces be provided for a wheelchair to make a 180 degree turn within 2m of an end of corridor and at maximum 20m intervals along an access path.
- 1800 x 2000 passing spaces be provided at maximum 20m intervals when a direct line of sight is not available.
- Accessible doors to have a minimum of 850mm clear opening width to the active leaf and appropriate door circulation areas.

#### Assessment:

Capable of achieving compliance.

The circulation spaces along paths of travel appear appropriate with the exception of some spaces noted on the marked plans to be addressed in subsequent design stages.

Confirm all details at further design stages.

#### 5.2 Passenger Lifts

The BCA and the Premises Standards have requirements for passenger lifts. The key requirements are:

- A minimum of 1100 x 1400mm lift car size for lifts travelling less than 12m.
- A minimum of 1400 x 1600mm lift car size for lifts travelling more than 12m.
- Lift access features be complaint with BCA E3.6 and AS 1735.12.

#### Assessment:

Capable of achieving compliance.

Both passenger lifts car size appear appropriate. Ensure details to BCA E3.6 and AS 1735.12 requirements.

Confirm all details at further design stages.

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#### 5.3 Stairs

The BCA and the Premises Standards have requirements for communication stairs. The key requirements are:

- Handrail and handrail extensions be provided on both sides of the stairway.
- Contrasting nosing strip at the edge of the stair riser.
- Tactile indicators with appropriate contrast be provided at the top and bottom of stairway.
- Stairs to set back 900mm from the allotment boundary to ensure handrail extensions and tactile indicators does not encroach into the transverse path of travel.

#### Assessment:

Capable of achieving compliance.

The layout of open stairways appear appropriate. Ensure tactile, nosing strips and handrail details to BCA and AS 1428.1 requirements.

Confirm all details at further design stages.

#### 5.4 Ramps and Walkways

The BCA and the Premises Standards have requirements for ramp access. The key requirements are:

- A maximum grade of 1:14 and landings at maximum 9m intervals
- Handrails, handrail extensions and kerb rails on both sides.
- Landing lengths of 1200mm or 1500mm.
- Tactile indicators at the top and bottom of ramp.
- Ramps are required to set back 900mm from the allotment boundary to ensure handrail extensions and tactile indicators do not encroach into the transverse path of travel.

#### Assessment:

Capable of achieving compliance.

1:20 walkways are provided and appear appropriate with the exception of the 180 degree turning at the landing. Refer marked plans.

Confirm all details at further design stages.



#### Amenities and Facilities

#### 6.1 Sanitary Facilities

The BCA and the Premises Standards have requirements for sanitary facilities. The key requirements are:

- Unisex accessible toilets:
  - 1 unisex accessible toilet be provided on each storey where toilets are provided.
  - Appropriate 1900 x 2300mm clear circulation spaces.
  - If more than 1 bank of toilets are provided on each level, accessible toilet is required at minimum 50% of those banks of toilets.
  - An even number of left hand (LH) and right hand (RH) toilet pan transfers is required throughout the building.
- Accessible showers:
  - · Where showers are provided, 1 in 10 showers are required to be accessible.
  - Appropriate clear circulation spaces.
- Ambulant toilets:
  - A male and female ambulant toilets are required where a bank of toilet are provided in addition to the accessible toilet.
  - 900 x 900mm clear circulation spaces in front of toilet pans and at doorways are required.

#### Assessment:

#### Unisex accessible toilets:

The layout of the accessible toilets appear appropriate. Ensure an even number of LH and RH toilet pan transfers are provided throughout the building.

#### Accessible showers:

The layout of the accessible showers appear appropriate. Ensure a unisex accessible shower is provided at the EOT facility. Refer marked plans.

#### Ambulant toilets:

The layout of the male and female ambulant toilets appear appropriate. Ensure 900 x 900mm circulation space is provided within airlocks. Refer marked plans.

Confirm all details at further design stages.



#### 6.2 Hearing Augmentation

The BCA and the Premises Standards have access requirements for the provision of Hearing Augmentation Systems. The key requirements of this provision are:

- A hearing augmentation system must be provided where an inbuilt amplification system is provided (other than the emergency warning).
- In a room in a Class 9b building; or
- In an auditorium, conference room, meeting room or room for judicatory proposes; or
- At ticket office, teller's booth, reception area where the public is screened form the service provider.
- An induction loop to cover minimum 80% of the floor area.
- Receiver systems to cover minimum 95% of the floor area.

#### Assessment:

Capable of achieving compliance.

It is intended that hearing loops will be provided throughout the facility to assist persons with hearing impairment. Details of this nature will be developed as the design progresses.

Confirm all details at further design stages.

#### 6.3 Signage

The BCA and the Premises Standards have signage requirements. The key requirements are:

- Signage be provided to all male, female, accessible and ambulant toilets. It is to include:
  - Braille and tactile.
  - International symbol of access.
  - · 'LH' or 'RH' to indicate a left-hand or right-hand transfer onto toilet pan.
  - Appropriate font size.
- At required fire exits.
- Where hearing augmentation systems are provided.
- Ensure all signage is detectable with raised symbols and 30% luminance contrast to its background, and in turn, contrasts with the background wall surface.
- Directional signage is required at:
  - Banks of toilets without an accessible toilet, to direct person to the nearest accessible toilet.
  - · Non-accessible entrances to direct persons to an accessible entrance.



- Signage to be located on the wall, adjacent to latch side of the door, between 1200 - 1600mm AFFL (or for single line of tactile text: located between 1250 - 1350mm AFFL).

#### Assessment:

Signage details is not provided at this early stage of the design process. Ensure details to BCA and AS 1428.1 requirements.

Confirm all details at further design stages.

#### 6.4 Accessible Car Parking Spaces

The BCA and the Premises Standards have requirements for the provision of accessible car parking spaces. The key requirements are:

- Class 5: 1:100 or part thereof.
- An accessible car parking space requires a 2400 x 5400mm parking space and shared area.
- A minimum of 2500mm height clearance is required for the accessible parking spaces.
- A minimum of 2200mm vertical clearance is required from the entry and exits to the accessible car parking spaces (Note: consideration for minimum 2300 2400mm head clearance height is preferred and recommended).

#### Assessment:

Capable of achieving compliance.

The size and layout of the accessible carparking space provided appear appropriate.

Confirm all details at subsequent design stages.

#### Advisory:

All accessible car parking spaces should be located near entrances and lifts to the spaces that it serves to minimise travel distances and fatigue.



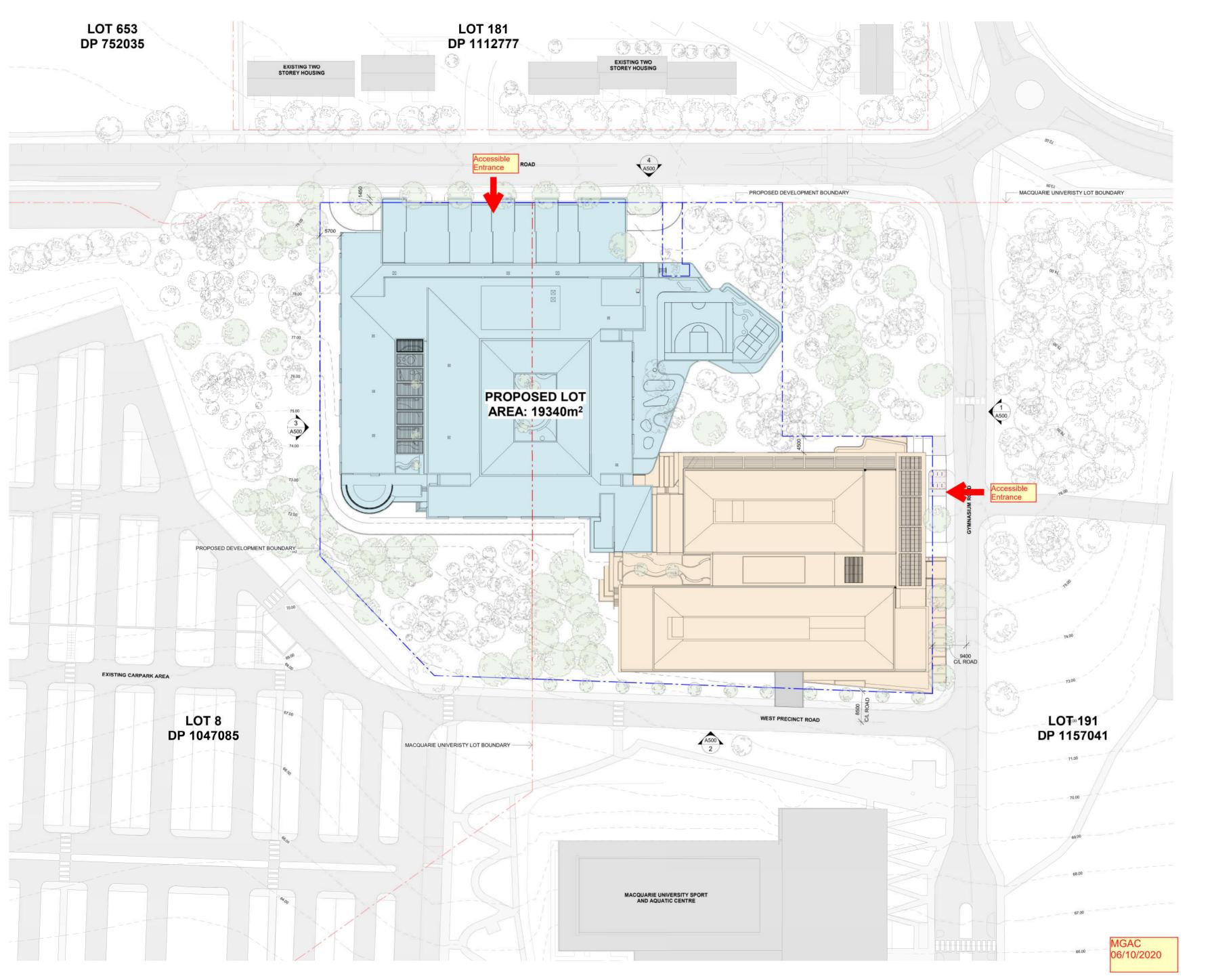
## 7. Conclusion

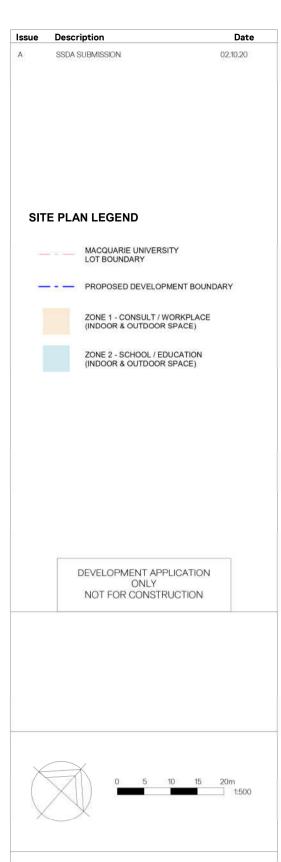
MGAC has reviewed the proposed development. The drawings indicate that access requirements can readily be achieved subject to the recommendations noted in the marked plans and within this report being addressed during further design stages.

It is advised that MGAC will continue to work with the project team as the scheme progresses to ensure appropriate outcomes are achieved throughout the developmental design stages and during the construction phase.



# 8. Marked Plans







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#### Proje

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#### 14044 2

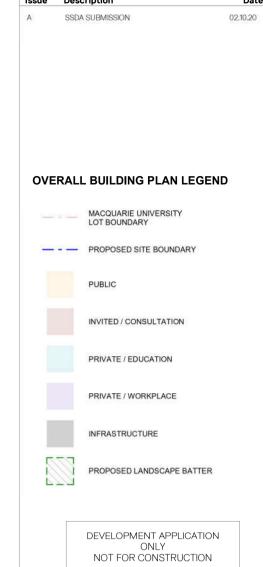
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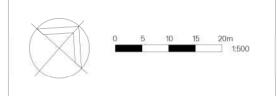
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Project No.	Drawn By
19181	MM

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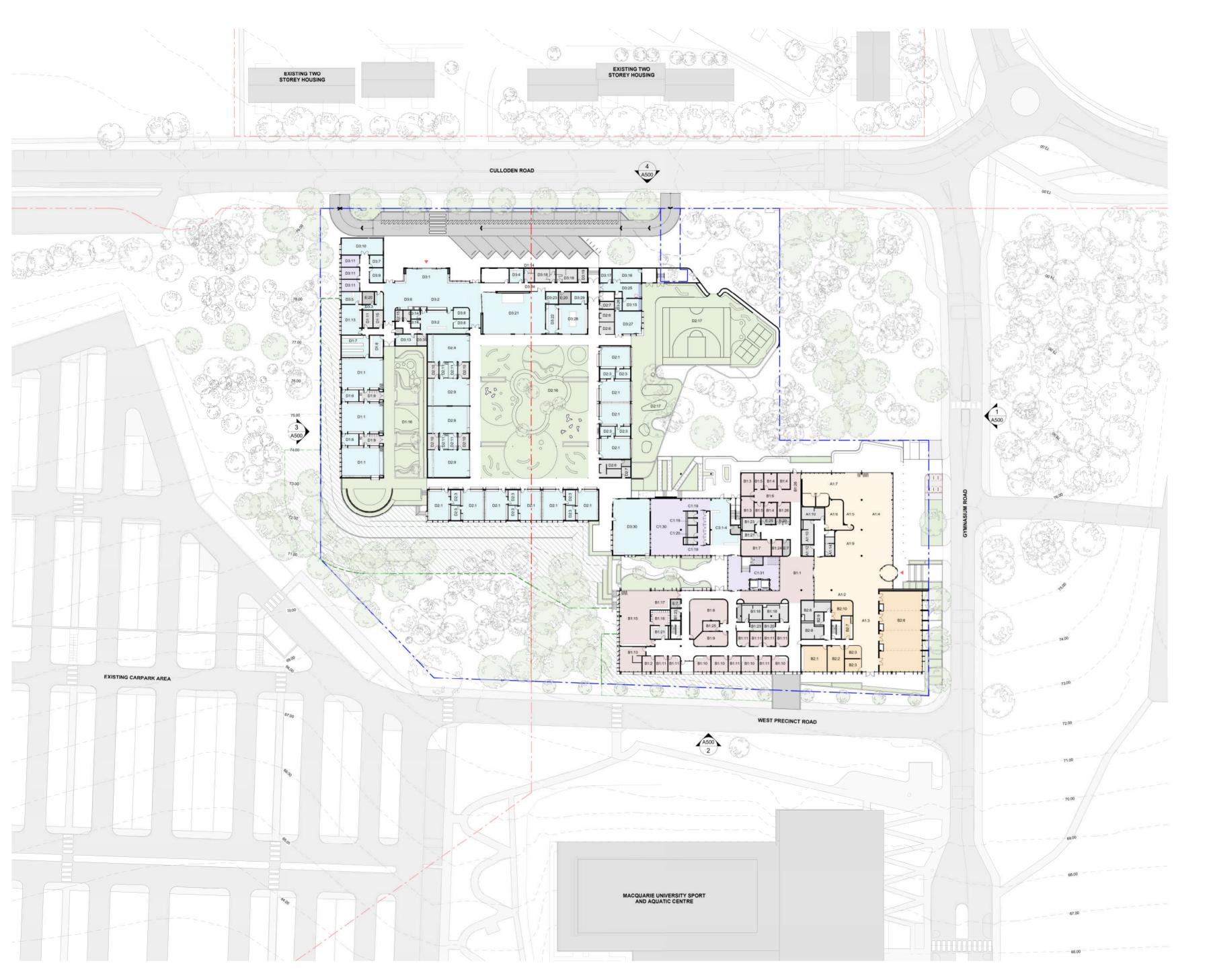
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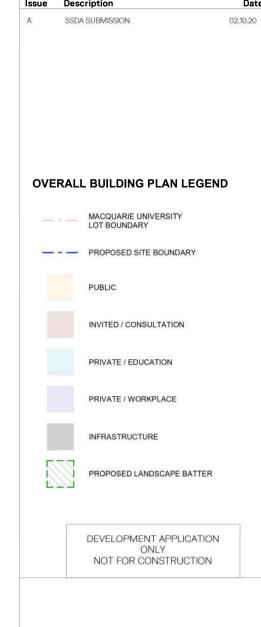
GYMNASIUM & CULLODEN ROAD MACQUARIE UNIVERSITY NSW 2109

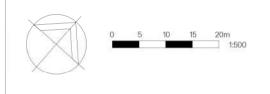
OVERALL PLAN - BASEMENT

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Scale	Drawing Size
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Project No.	Drawn By
19181	MM

## **CAD Reference**









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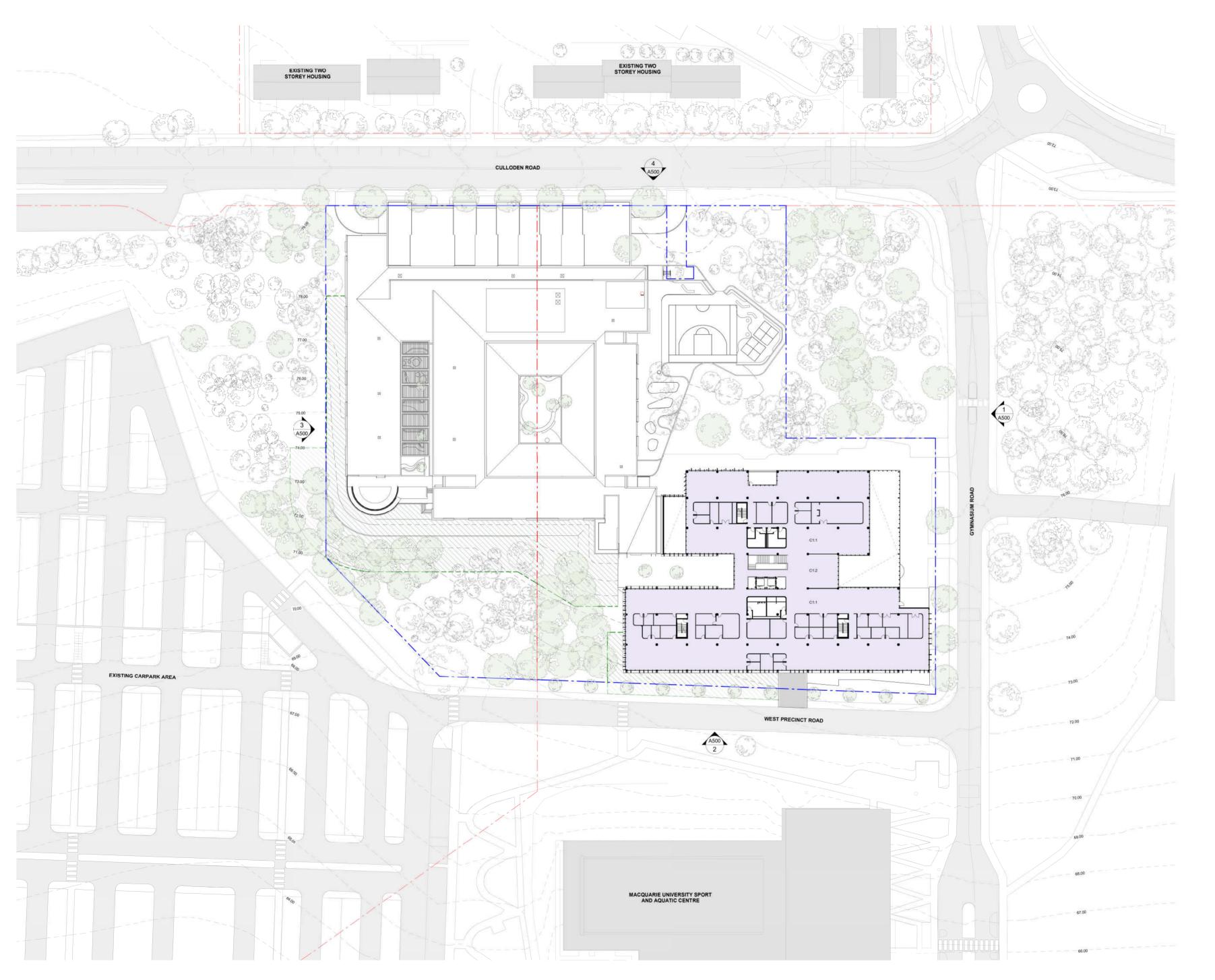
#### 14044 2

OVERALL PLAN - GROUND

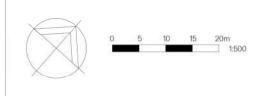
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## CAD Reference

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#### Project

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#### Title

OVERALL PLAN - LEVEL 1

Drawing No.	Issue
A102	A
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19181	MM
CAD D-f	

#### CAD Reference

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SSDA SUBMISSION 02,10.20 ZONE BUILDING PLAN LEGEND MACQUARIE UNIVERSITY LOT BOUNDARY -- PROPOSED DEVELOPMENT BOUNDARY CONFERENCE PUBLIC EDUCATION INFRASTRUCTURE PROPOSED LANDSCAPE BATTER DEVELOPMENT APPLICATION ONLY NOT FOR CONSTRUCTION -EXISTING & NEW TREE SIZING & LOCATION ARE INDICATIVE ONLY, REFER TO ARBORIST & LANDSCAPE REPORTS / DRAWINGS FOR FURTHER INFORMATION. -FOR EXTERNAL FINISHES & MATERIALS REFER TO A510 DRAWING SERIES.



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# GYMNASIUM & CULLODEN ROAD MACQUARIE UNIVERSITY

FLOOR PLAN - ZONE 1 - BASEMENT

A110	А
<b>Scale</b> 1: 200	Drawing Size △1
Project No.	Drawn By
19181	MM

MGAC 06/10/2020



SSDA SUBMISSION 02.10.20 LANDSCAPE BATTER -EXISTING & NEW TREE SIZING & LOCATION ARE INDICATIVE ONLY, REFER TO ARBORIST & LANDSCAPE REPORTS / DRAWINGS FOR FURTHER INFORMATION. ROYAL INSTITUTE FOR DEAF AND BLIND **Drawing Size** 19181 MM**CAD Reference** Dimensioned Drawings to take precedence over scaling. Contractor to verify all dimensions on site before construction. All inconsistencies to be reported to the Architect immediately. This drawing and its contents remain the copyright of WMM. Architecture Ptv. It die. WMK Architecture Pty Ltd ©

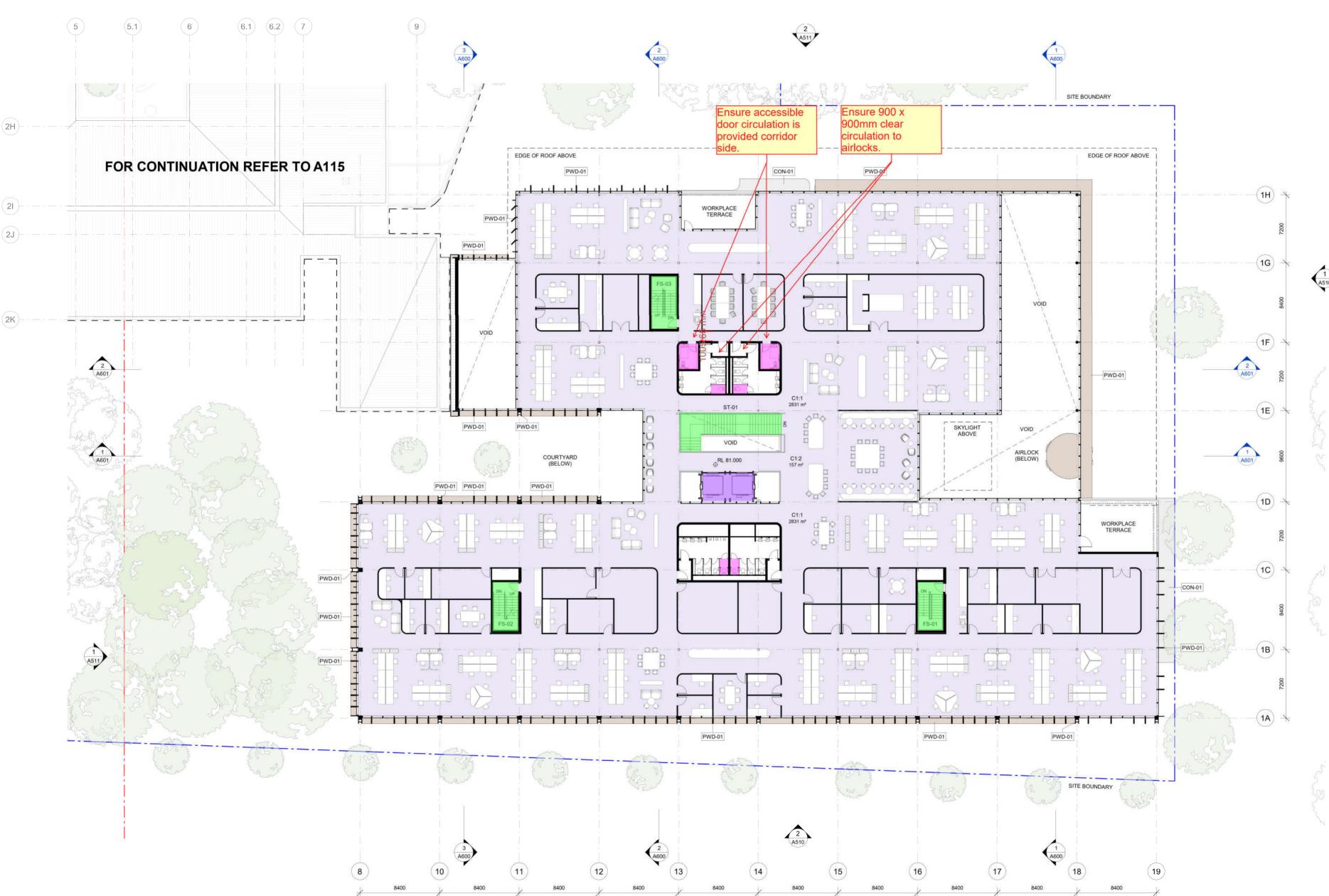
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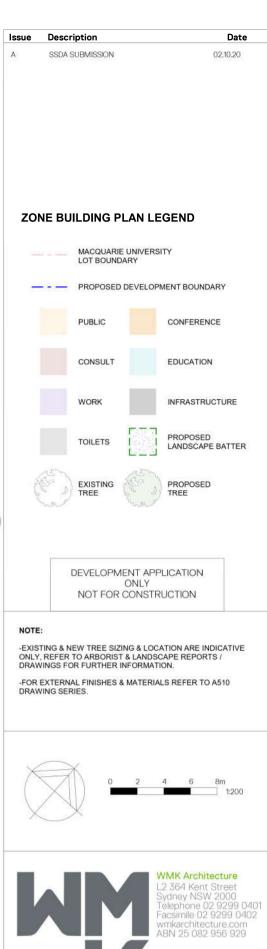
06/10/2020

Issue Description

Date









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FLOOR PLAN - ZONE 1 - LEVEL 1

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19181	MM

**CAD Reference**