



DESIGN CONFIDENCE

School Infrastructure NSW

Access Design Assessment Report
Development Application

Budawang School
Milton NSW 2538

Project: Budawang School
 Milton NSW 2538
 Document Type: Access Design Assessment Report
 Our Reference: P220_441-3 (ACCESS) FMR

The following report register documents the development and issue of this and each subsequent report(s) undertaken by Design Confidence (Sydney) Pty Ltd.

The technical and intellectual content contained herein remain the property of Design Confidence (Sydney) Pty Ltd and have been prepared and may only be used for the development / buildings being the subject of this report.

Revision History—

OUR REFERENCE	REMARKS	ISSUE DATE
P220_441-1 (ACCESS) FMR	Draft report issued to client	01 February 2021
P220_441-2 (ACCESS) FMR	Final report issued to client	01 March 2021
P220_441-3 (ACCESS) FMR	Report updated to reflect updated architectural drawings and re-issued as FINAL to client	16 April 2021

CONTENTS

EXECUTIVE SUMMARY	4
1.0 INTRODUCTION.....	5
1.1 General	5
1.2 Purpose of Report.....	5
1.3 Documentation Provided for Assessment	5
1.4 Limitations	5
1.5 Report Exclusions	5
1.6 BCA Assessment – Interpretation Notes	6
2.0 BCA ACCESS DESIGN ASSESSMENT SUMMARY	7
2.1 Interpretation	7
2.2 Part D3 – Access for People with a Disability	7
2.3 Part E3.6 – Passenger Lifts.....	7
2.4 Part F2.4 – Accessible Sanitary Facilities.....	7
2.5 Part F2.9 – Accessible Adult Change Facilities	7
3.0 BCA DETAILED ASSESSMENT	8
3.1 General	8
3.2 Part D3 – Access for People with a Disability	8
3.3 Part E3.6 – Passenger Lifts.....	13
3.4 Part F2.4 – Accessible Sanitary Facilities.....	14
3.5 Part F2.9 – Accessible Adult Change Facilities	15
4.0 CONCLUSION	17
4.1 General	17
APPENDIX 1 – Documentation Provided for Assessment	18
APPENDIX 2 – Design Checklist – Prescriptive Requirements	19
APPENDIX 3 – AS1428.2-1992 Detailed Assessment.....	42
AS1428.2-1992 Design Checklist.....	42
APPENDIX 4 - Drawing Mark-ups.....	64

EXECUTIVE SUMMARY

This Access Design Assessment Report has been prepared by Design Confidence at the request of School Infrastructure NSW and relates to the proposed educational development, being Budawang School, located in Milton NSW 2538.

The recommendations in this report are to be developed with the ongoing design development and should be confirmed prior to construction certificate stage. As the design progresses, further review of documentation shall be undertaken to ensure that compliance with the accessibility provisions of the BCA is achieved.

Based upon our assessment to date we are of the opinion that the subject development is capable of achieving compliance with the accessibility provisions of the BCA, either by complying with the prescriptive requirements or via a performance-based approach.

With respect to the assessment undertaken, the following items shall be reviewed further as the project develops—

ITEM	DESCRIPTION	RESPONSIBILITY
1	Reduced accessibility provisions to doors and/or gates on the accessway, being clear opening, circulation spaces and gradient of the circulation spaces.	Project Architect
2	Proposed levels along the pedestrian paths from the site boundary, from the accessible parking spaces and between buildings.	Project architect / Landscape Architect / Civil Consultant
3	Provision of Male & Female accessible WCs in lieu of unisex facilities in the Hydrotherapy building.	Project Architect
4	Circulation spaces within the accessible WCs to comply with AS1428.2-1992.	Project Architect
5	Circulation spaces within the ambulant WCs.	Project Architect
6	Provision of a hinged door and corner WC within the Change Rooms.	Project Architect
7	As design progresses, further details shall be provided to ensure compliance with the requirements of the BCA / AS1428.1-2009 is achieved, such as: a. Ramp, walkway and stairway details; b. Wet area (sanitary facilities) details; c. Door schedule and door hardware; d. Glazing schedule and visual indicators to glazing; e. Signage details; f. Inbuilt amplification systems (if any).	Project Architect

1.0 INTRODUCTION

1.1 General

This report has been prepared at the request of School Infrastructure NSW and relates to the proposed educational development, being Budawang School, located in Milton NSW 2538

The proposed development includes five (5) school buildings, including homebases, staff areas and hydrotherapy buildings and external car parking spaces.

In the context of this report and the BCA the building use can be described as follows—

CLASSIFICATION	DESCRIPTION
Class 5	Office
Class 9b	School

STOREYS CONTAINED (INCLUDING BASEMENT LEVELS)	
One (1)	All buildings are single storey

1.2 Purpose of Report

The purpose of this report is to identify the extent to which the architectural design documentation complies with the *accessibility provisions* of the National Construction Code – Building Code of Australia Volume 1, Edition 2019 Amendment 1 (hereinafter referred to as the BCA), as are principally contained within Parts D3, E3.6, F2.4 and F2.9 and relevant Australian Standards.

1.3 Documentation Provided for Assessment

This assessment is based upon the architectural documentation prepared by Group GSA and listed within **Appendix 1**.

1.4 Limitations

This report is based upon, and limited to, the information depicted in the documentation provided for assessment and does not make any assumptions regarding design intention or the like.

This assessment does not contain comments regarding detailed design issues such as (but not limited to): luminance contrast, slip resistance, handrail design, door schedule and door hardware specification, hearing augmentation systems, location of fittings within sanitary compartments and lift specification.

1.5 Report Exclusions

It is conveyed that this report should not be construed to infer that an assessment for compliance with the following has been undertaken—

- (i) Work Health & Safety Act and Regulations; and
- (ii) Work Cover Authority requirements; and
- (iii) Structural and Services Design Documentation; and

- (iv) The Disability Discrimination Act (DDA) 1992; and
- (v) Any parts of the BCA or any standards other than those directly referenced in this report.

1.6 BCA Assessment – Interpretation Notes

To provide the reader with additional context the following information regarding assessment methodology used in this assessment is provided below—

- (i) The following rooms / areas and associated accessways have been afforded the concession under D3.4 and access for people with disabilities need not be provided to these areas—
 - Plant and equipment rooms;
 - Storage rooms;
 - Cleaners rooms;
 - Comms rooms / BCR rooms;
 - Laundry rooms.
- (ii) Movable furniture is the ongoing responsibility of the occupants who should maintain appropriate circulation spaces between and around furnishings;
- (iii) The gate from the New Access Road (south) has been treated as being for egress and a secondary entry. The main pedestrian entry and accessway to the school is via the entry from Croobyar Road;
- (iv) The proposed Change Rooms have been assessed having consideration to the requirements under Specification F2.9 of the BCA. For clarification, this refers specifically to rooms –
 - A1R0018;
 - A2R0016;
 - Block B – BR0006, BR0012 and BR0014;
 - Block C- CR0005, CR0007, CR0017 and CR0019; and
 - DR0003.

2.0 BCA ACCESS DESIGN ASSESSMENT SUMMARY

2.1 Interpretation

The following tables summarise the compliance status of the architectural design in terms of each *applicable* prescriptive provision of the BCA and indicates a **capability for compliance** ('COMPLIES') with the accessibility provisions of the BCA.

A detailed analysis and commentary are provided in **Section 3.0** of this report in the instance that prescriptive non-compliance occurs ('DOES NOT COMPLY') or further 'DESIGN DETAIL' is required. Such instances should not necessarily be considered BCA deficiencies, but rather matters which need to be considered by the design team, the certifying authority and all other relevant stakeholders as design progresses.

2.2 Part D3 – Access for People with a Disability

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
D3.1	General building access requirements			✓
D3.2	Access to buildings			✓
D3.3	Parts of buildings to be accessible			✓
D3.5	Accessible carparking			✓
D3.6	Signage			✓
D3.7	Hearing augmentation			✓
D3.8	Tactile indicators			✓
D3.9	Wheelchair seating spaces	N/A		
D3.10	Swimming pools			✓
D3.11	Ramps	✓		
D3.12	Glazing on an accessway			✓

2.3 Part E3.6 – Passenger Lifts

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
E3.6	Passenger lifts	N/A		

2.4 Part F2.4 – Accessible Sanitary Facilities

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
F2.4	Accessible unisex sanitary compartments			✓
F2.4	Sanitary facilities for people with ambulant disabilities			✓

2.5 Part F2.9 – Accessible Adult Change Facilities

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
F2.9	Accessible adult change facilities			✓

3.0 BCA DETAILED ASSESSMENT

3.1 General

With reference to the BCA Access Design Assessment Summary contained in **Section 2.0** above, the following analysis and commentary is provided.

In all instances, reference is also made to **Appendix 2**, which contains design guidance and other items which shall be coordinated by the relevant stakeholders as design progresses to ensure compliance with the deemed-to-satisfy (DtS) accessibility provisions of the BCA is achieved.

Furthermore, the analysis below contains preliminary advice regarding opportunities for the implementation of a performance-based approach in lieu of complying with the prescriptive (DtS) provisions of the BCA.

3.2 Part D3 – Access for People with a Disability

3.2.1 Clause D3.1 – General building access requirements

BUILDING CLASS	ACCESSIBILITY REQUIREMENTS
Class 5	Access is required to and within all areas normally used by the occupants.
Class 9b	Access is required to be provided to and within all areas normally used by the occupants, including to wheelchair seating spaces provided in accordance with Clause D3.9. Access is not required to be provided to tiers/platforms of seating areas that do not contain wheelchair seating spaces.
All buildings	Access is not required to be provided to the areas afforded the concession under Clause D3.4 and identified in Section 1.6 above.

The following comments are provided in regards the requirements of Clause D3.1 of the BCA to be addressed as design progresses—

DESCRIPTION	COMMENT	RESOLUTION
Bifold doors	<p>Bifold doors are proposed to be provided, whereby in some instances access between different rooms being solely via bifold doors. This is referent to the following locations –</p> <ul style="list-style-type: none"> Block A1 – between Staff Lounge and Staff Study; Block A2 – between Kitchenette and Life Skills. 	<p>Bi-fold doors are not accepted in the accessway.</p> <ul style="list-style-type: none"> Option 1 - one of the door leaves to be capable of being operated as a by-pass door achieving min. 850mm clear opening and circulation spaces; Option 2 - include a hinged door adjacent the bi-fold door with min. 850mm clear opening and circulation spaces;

DESCRIPTION	COMMENT	RESOLUTION
		<ul style="list-style-type: none"> Option 3 – pursue a performance-based solution to justify the current design.
Doors – clear opening	Reduced clear opening width is achieved at the door serving the Hydrotherapy building (D02 – D).	<p>Doors will be required to achieve a minimum 850mm clear opening width. This generally requires a minimum 920mm door leaf.</p> <p>Where double doors are used, at least the active leaf shall achieve a min.850mm clear opening width.</p>
Door – circulation space	The door from the Life Skills room (A2R0011) is provided with nil latch-side circulation space on the external side due to the 1:20 walkway located directly adjacent to the subject door.	<p>Clarify if the subject door is proposed being for egress only.</p> <p>If proposed as an entry to the Life Skills room, the latch-side circulation space to the external side shall be not steeper than 1:40.</p>
Threshold ramp	In some locations, there is a 30mm level difference between the external paths and the interior RL.	Design detail – ensure that a threshold ramp in accordance with Clause 10.5 of AS1428.1-2009 is provided to allow for step-free access.

3.2.2 Clause D3.2 – Access to buildings

A pedestrian entry from the site boundary on Croobyar Road is indicated below by the arrow in **red**. The location of the Main Entry is indicated below in **pink**.



Figure 1 – Pedestrian entry

The following comments are provided in regards the requirements of Clause D3.2 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Gates	<p>Clarification is required relating to gate at the site entry from Croobyar Road, being –</p> <ul style="list-style-type: none"> Discrepancy between the site plan (single leaf gate) and the Hydrotherapy plan (double leaf gate); For a single gate leaf per site plan, there is nil latch-side circulation provided 100mm rise in elevation from the path outside the site boundary to the proposed RL inside the boundary. 	<p>Clarification is required from the design team –</p> <ul style="list-style-type: none"> The gate at the main entry shall be in accordance with Clause 13 of AS1428.1-2009, including the required circulation spaces; Clarification required from the design team to ensure that a step-free path of travel through the main entry is achieved.
Proposed levels	<p>Concern is raised relating to the proposed levels along the external pedestrian paths.</p> <p>Refer to the drawing mark-ups in Appendix 4 below.</p> <p>In particular –</p> <ul style="list-style-type: none"> 1:20 gradient proposed at the entries to Block C; 1:20 gradient proposed adjacent to Block A2 and leading to Block D entry; Gradient at intersections of different paths; Discrepancies between the site plan and the GA plans. 	<p>An accessway in accordance with AS1428.1-2009 from the site boundary, from the accessible parking spaces and between buildings shall be achieved.</p> <p>Refer to the drawing mark-ups in Appendix 4 below for the relevant resolutions for each location.</p>

3.2.3 Clause D3.3 – Parts of the building to be accessible

The following comments are provided in regards the requirements of Clause D3.3 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Walkways	<p>Ensure the proposed external walkways achieve compliance with the requirements of AS1428.1-2009 Clause 10.</p>	<p>Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.</p>
Stairway	<p>A stairway is proposed to the south at the gate to the New Access Road.</p>	<p>Ensure the proposed stairway achieves compliance with the requirements of AS1428.1-2009 Clause 11 and 12.</p>

DESCRIPTION	COMMENT	RESOLUTION
		Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.

3.2.4 Clause D3.4 – Exemptions

Refer to **Section 1.6** above for areas afforded the concession under D3.4.

3.2.5 Clause D3.5 – Accessible carparking

The following comments are provided in regards the requirements of Clause D3.5 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Minimum requirement	A total of thirty (30) external car parking spaces are proposed, being two (2) designated as accessible parking spaces.	<p>Compliance is achieved with the requirements of Clause D3.5 of the BCA in regards the minimum number of accessible parking spaces required in a car parking area associated with a Class 5/9b school building.</p> <p>Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments (such as pavement markings, provision of bollard etc).</p>
Gradient	The two (2) accessible parking spaces and the associated shared areas are located where the ground floor surface achieves a ~1:16.7 gradient.	<p>Accessible parking spaces and associated shared areas shall be located such that the ground floor surface is not steeper than 1:40 in any direction.</p> <p>Note that 1:33 may be permitted if the ground surface is a bituminous seal.</p>

3.2.6 Clause D3.6 – Signage

The following comments are provided in regards the requirements of Clause D3.6 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Minimum requirement	Signage details have not yet been provided for assessment.	Signage will be required in accordance with the requirements of this clause.

DESCRIPTION	COMMENT	RESOLUTION
		Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.

3.2.7 Clause D3.7 – Hearing augmentation

The following comments are provided in regards the requirements of Clause D3.7 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Minimum requirement	Inbuilt amplification systems and/or hearing augmentation system details have not yet been provided for assessment.	<p>A hearing augmentation system will be required where an inbuilt amplification system is proposed.</p> <p>Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.</p>

3.2.8 Clause D3.8 – Tactile indicators

The following comments are provided in regards the requirements of Clause D3.8 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Minimum requirement	Tactile indicators have not yet been detailed within the design documentation.	<p>Tactile indicators will be required at stairways (stairways to the south) and where the vehicular way is at the same level as the pedestrian path at the entry.</p> <p>Tactile indicators are not required at the swimming pool ramp.</p> <p>Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.</p>

3.2.9 Clause D3.9 – Wheelchair seating spaces in Class 9b assembly buildings

Not applicable – no areas with fixed seating have been identified in this instance.

3.2.10 Clause D3.10 – Swimming pools

A pool is proposed within the Hydrotherapy building, with a ~44m perimeter, thus being required to be accessible in accordance with Clause D3.1 of the BCA. An accessible means of entry into the pool is proposed via 1:14 ramps.

The following comments are provided in regards the requirements of Clause D3.10 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Handrails – stairway	The stairway is proposed with reduced handrail extensions to the open side, at the bottom landing.	Design detail – the handrail extensions shall be as follows – <ul style="list-style-type: none"> At the top landing, a min. 300mm horizontal handrail extension; At the bottom landing, one tread depth parallel to the line of nosing + min. 300mm horizontal extension.
Ramp	The total rise achieved by the series of ramps into the pool is ~885mm in lieu of 900mm.	Minor amendments to be made to the proposed ramp design to ensure that the total rise is 900mm. Note that the ramp (1:14) sections shall not be more than 6m to achieve compliance with AS1428.2-1992.
Aquatic wheelchair	It shall be noted that Clause D3.10 also requires the provision of an aquatic wheelchair within the subject development.	Ensure an aquatic wheelchair is available for use by building occupants.

3.2.11 Clause D3.11 – Ramps

Compliance is achieved with the requirements of this clause.

3.2.12 Clause D3.12 – Glazing on an accessway

The following comments are provided in regards the requirements of Clause D3.12 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Minimum requirement	Visual indicators have not yet been detailed within the design documentation.	Visual indicators will be required where full height glazing is proposed. Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.

3.3 Part E3.6 – Passenger Lifts

Not applicable – no lifts proposed as all buildings are single storey buildings.

3.4 Part F2.4 – Accessible Sanitary Facilities

3.4.1 Accessible unisex sanitary facilities

The following comments are provided in regards the requirements of Clause F2.4 of the BCA relating to accessible sanitary facilities to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Transfer side	<p>A total seven (7) accessible sanitary compartments for students are proposed as follows –</p> <ul style="list-style-type: none"> Block A1 (A1R0004) – RH; Block A2 (A2R0002) – RH; Block A2 (A2R0018) – LH; Block B (BR0002) – RH; Block C (CR0011) – LH; Block D – Female (DR0005) – LH; Block D – Male (DR0015) – RH. <p>Moreover, two (2) accessible sanitary compartments for staff are provided, being –</p> <ul style="list-style-type: none"> Block A1 (A1R0012) – LH; Block D (DR0006) – RH. 	Refer to comments below for further guidance.
Unisex facilities	Concern is raised whereby 2 x accessible WCs in the Hydrotherapy building are located within an area reserved of one sex only, being within the Male and Female Change rooms.	Clause F2.4(f) requires that an accessible unisex sanitary facility must be located so it can be entered without crossing an area reserved for one sex only.
Circulation space	Refer to Appendix 3 below for comment relating to circulation spaces as required under AS1428.2-1992.	Refer to Appendix 3.
Fixtures	<p>The following issues have been identified in this instance –</p> <ul style="list-style-type: none"> Reduced width of the basin, being ~415mm; Reduced depth of basin, being ~415mm; The edge of the shower seat is ~450mm from the wall. 	<p>Design detail – all fixtures and fittings within the accessible WCs shall be in accordance with AS1428.1-2009, as follows –</p> <ul style="list-style-type: none"> The minimum width of the basin shall be 450mm; The minimum depth of the basin shall be 430mm; The edge of the shower seat shall be 390-400mm from the wall.
Design detail	Detailed wet area drawings have not yet been provided.	Level of detail provided is suitable for this stage – as design progresses,

DESCRIPTION	COMMENT	RESOLUTION
		provide details for review and comments.

3.4.2 Sanitary compartment for people with ambulant disabilities

The following comments are provided in regards the requirements of Clause F2.4 of the BCA relating to sanitary facilities for people with ambulant disabilities to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Circulation space	The basin obstructs the required circulation spaces within the ambulant WCs in Block A1.	A min. 900x900mm clearance shall be achieved forward of the toilet pan and forward of the door.
Staff WC	A WC for use by staff is proposed (A1R0011), which is not currently proposed as an ambulant WC.	The subject WC shall be provided as an ambulant WC and shall be designed in accordance with Clause 16 of AS1428.1-2009.
Design detail	Detailed wet area drawings have not yet been provided.	Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.

3.5 Part F2.9 – Accessible Adult Change Facilities

The following comments are provided in regards the requirements of Clause F2.9 of the BCA to be addressed as design progresses —

DESCRIPTION	COMMENT	RESOLUTION
Minimum requirement	<p>The proposed Change Rooms have been assessed having consideration to the requirements under Specification F2.9 of the BCA. For clarification, this refers specifically to rooms –</p> <ul style="list-style-type: none"> ▪ A1R0018; ▪ A2R0016; ▪ Block B – BR0006, BR0012 and BR0014; ▪ Block C- CR0005, CR0007, CR0017 and CR0019; and ▪ DR0003 	Refer to the comments below for further guidance.
Peninsular-type toilet	The toilet within the accessible change facilities is proposed as being a corner accessible toilet in	Specification F2.9 requires the provision of a peninsular-type toilet.

DESCRIPTION	COMMENT	RESOLUTION
	lieu of a centrally located toilet (peninsular-type).	
Door	The accessible change facilities throughout are proposed with hinged doors with reduced clear opening width.	Provide an automatic sliding door in accordance with Specification F2.9. It is noted that the door will be required to achieve a minimum 950mm clear opening width.
Basin	The basin proposed within the accessible change facilities is not in accordance with Specification F2.9, being in the Hydrotherapy building.	Design detail – the basin is required to have an integrated shelf not less than 300mm long.
Hoist	It shall be noted that Specification F2.9 requires the provision of a hoist within the accessible change facilities.	Design detail – Ensure a hoist is provided within each accessible change facility in accordance with Clause 3 of Specification F2.9
Design detail	Detailed wet area drawings have not yet been provided.	Level of detail provided is suitable for this stage – as design progresses, provide details for review and comments.

4.0 CONCLUSION

4.1 General

Our strategy for ensuring compliance has been refined and documented during the design process in conjunction with the continual development of the architectural documentation, as required.

Based upon our assessment to date we are of the opinion that the subject development is capable of achieving compliance with the relevant accessibility provisions of the National Construction Code – Building Code of Australia Volume 1, Edition 2019 Amendment 1, subject to the comments provided in **Section 3.0** and the design detail contained in **Appendix 2**.

Compliance can be achieved either by meeting the deemed-to-satisfy requirements of the BCA, as are principally contained within Parts D3, E3.6, F2.4 and F2.9, or via a performance-based approach.

We trust that the above information is sufficient for the consent authority in assessing the merit of the architectural design from a planning perspective.

Report By



Fatima Mendes Raposo
Consultant | Accessibility
For Design Confidence (Sydney) Pty Ltd

Verified By



Luke Sheehy
Principal
For Design Confidence (Sydney) Pty Ltd

APPENDIX 1 – Documentation Provided for Assessment

This accessibility assessment was based upon the architectural documentation prepared by Group GSA, namely—

DRAWING	REV	TITLE	DATE
A2000	N	Site Plan	16.03.2021
A2001	O	Block A Plan	16.03.2021
A2002	O	Block B Plan	16.03.2021
A2003	M	Block C Plan	16.03.2021
A2004	P	Hydrotherapy Plan	16.03.2021

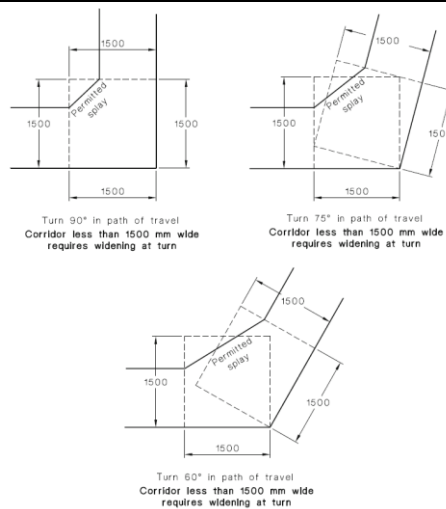
APPENDIX 2 – Design Checklist – Prescriptive Requirements

The following design guidance checklist is provided for implementation and coordination during construction in order to achieve compliance with the prescriptive requirements of the BCA, AS1428.1-2009, AS/NZS1428.4.1:2009, AS1735.12-1999 and AS/NZS2890.6:2009 as applicable.

1. ACCESS TO BUILDINGS	
1.1.	Provide an accessible path of travel compliant with AS1428.1-2009 from all main pedestrian entry points at the site boundary to the principal pedestrian entrance/s of the building.
1.2.	Where a building is afforded with multiple pedestrian entries, an accessway shall be provided through and through: <ul style="list-style-type: none"> (i) The principal pedestrian entrance (PPE); and (ii) Not less than 50% of pedestrian entrances, including the PPE. Where the building area is greater than 500m ² : <ul style="list-style-type: none"> (i) A non-accessible pedestrian entrance shall not be located more than 50m from an accessible pedestrian entrance.
1.3.	Provide an accessible path of travel compliant with AS1428.1-2009 from another building connected by a pedestrian link (not being the public footpath) within the allotment.
1.4.	Provide an accessible path of travel compliant with AS1428.1-2009 from accessible car parking spaces on the site.
1.5.	An accessible path of travel/accessway shall be in accordance with AS1428.1-2009 as applicable. <i>Note: this includes requirements relating to floor finishes, stairway, ramps, doorways etc. Refer to the relevant section below for further detail.</i>

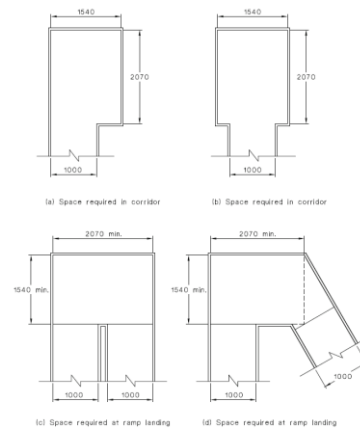
2. PATHS OF TRAVEL	
2.1.	A continuous accessible path of travel shall not include a step, stairway, turnstile, revolving door, escalator, moving walk or the like.
2.2.	Provide 1000mm minimum clear width of path of travel compliant with AS1428.1-2009. <i>Note: the width of the path of travel shall be taken clear of any obstructions, such as handrails, kerb rails, skirting, fire hose reels, fire extinguishers or the like.</i>
2.3.	The minimum unobstructed height of a continuous path of travel shall be 2000mm or 1980mm at doorways.
2.4.	An accessway shall be provided with turning spaces in accordance with the BCA and AS1428.1-2009 where required.
2.5.	A turning space not less than 1500 x 1500mm is required to allow for a 60-90° turn on the accessway. A splay across the internal corner is permitted in accordance with Figure 4 of AS1428.1-2009.

2. PATHS OF TRAVEL

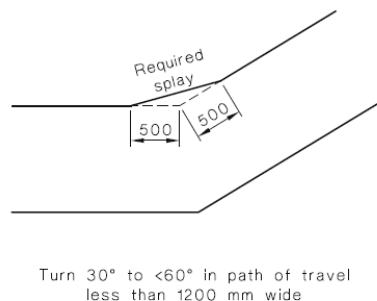


2.6. A turning space not less than 1540mm W x 2070mm L in accordance with Figure 5 of AS1428.1-2009 shall be provided:

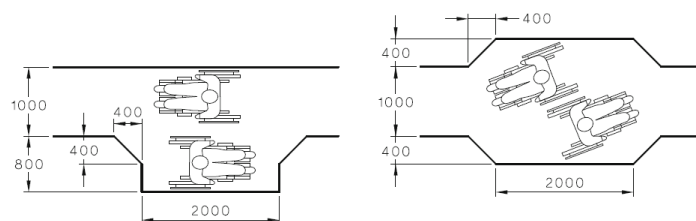
- (i) to allow for a 180° turn on the accessway;
- (ii) along pathways at maximum 20m intervals;
- (iii) at corridor ends, within 2m of the corridor end.



2.7. Where the width of the path of travel is less than 1200mm, a minimum 500x500mm splay is required to allow for a 30 to <60° turn on the accessway in accordance with Figure 4 of AS1428.1-2009.



2.8. A passing space not less than 1800mm W x 2000mm L is required along pathways at maximum 20m intervals where a direct line of sight is not available.

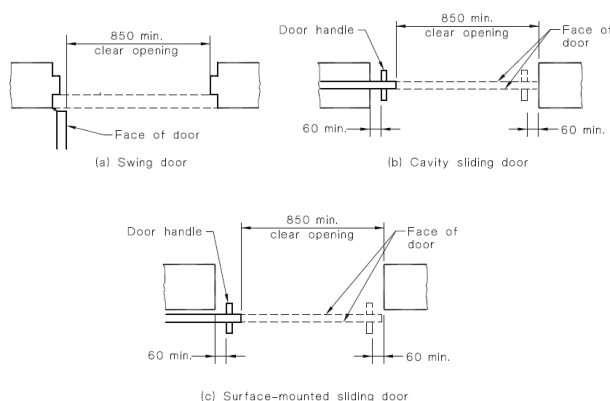


2. PATHS OF TRAVEL

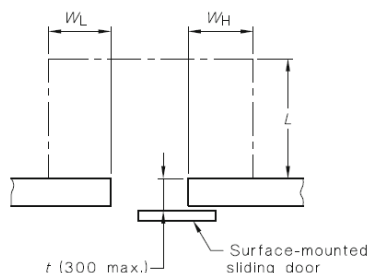
- 2.9. Floor finishes and abutment of surfaces shall be in accordance with Clause 7 of AS1428.1-2009.
Note: Reference is made to BCA Clause D2.14 in regards slip resistance requirements.
- 2.10. Where carpet or similar soft flexible flooring surface is proposed, the pile height shall be no more than 11mm with 4mm max backing surface.
- 2.11. Ensure drainage grates on accessible path of travel have openings no more than 13mm wide (or 13mm diameter).
Slotted openings shall be oriented such that the long dimension is transverse to the direction of travel.
- 2.12. Where recessed matting is proposed, it shall be in accordance with Clause 7.4.2 of AS1428.1-2009.

3. DOORS

- 3.1. Every door and/or gate on the accessway shall be in accordance with Clause 13 of AS1428.1-2009.
- 3.2. Minimum 850mm clear opening width (generally required 920mm door leaf), measured from the face of the door to the door stop.
Note: where double doors are proposed, at least the active/operable leaf shall achieve the minimum 850mm clear opening width.



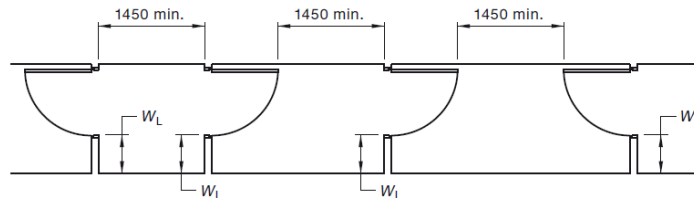
- 3.3. A minimum 30% luminance contrast shall be provided at doorways for ease of visual identification for people with vision impairment. The contrasting area (e.g. wall, architrave etc.) must have minimum 50mm width.
- 3.4. Every door and/or gate on the accessway shall be provided with circulation space on both sides to allow for operation of the door.
- 3.5. Circulation spaces shall be not steeper than 1:40. Refer to Figure 31 (hinged doors) and Figure 32 (sliding doors) of AS1428.1-2009 for the minimum required depth, latch-side and hinge-side circulation spaces as applicable.
- 3.6. Where surface-mounted sliding doors are proposed, the circulation spaces shall be increased by a factor of t as shown in Figure 33 of AS1428.1-2009.
Note: The factor t is the wall thickness to the face of the door.



Door approach	Increase from Figure 32
Figure 32(d)	Add dimensions t to dimensions W_L and W_H
Figure 32(a), 32(b), 32(c)	Add dimensions t to dimensions L , W_L and W_H

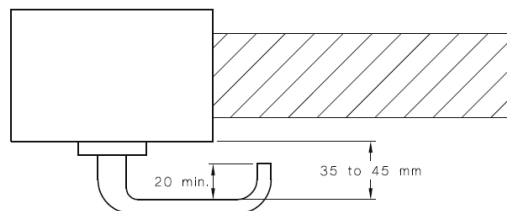
3. DOORS

- 3.7. Provide minimum 1450mm length between successive door swings in airlocks/vestibules or other similarly enclosed spaces on accessible path of travel.



- 3.8. All fully glazed doors and surrounding glazing (including glazed walls with no transom or similar) shall be clearly marked with 75mm min. wide, solid, non-transparent, contrasting line across their full width. The lower edge of line must be between 900-1000mm FFL and have 30% luminance contrast when viewed against floor or background surface within 2m of glazing.

- 3.9. Door hardware shall:
- (i) be a type that allows the doors to be operated with one hand;
 - (ii) allow for adequate grip for people with hand impairments;
 - (iii) have a clearance between the handle and the backplate or door face of 35-45mm;
 - (iv) where snibs are installed, have a lever handle with minimum 45mm length from the centre of the spindle.



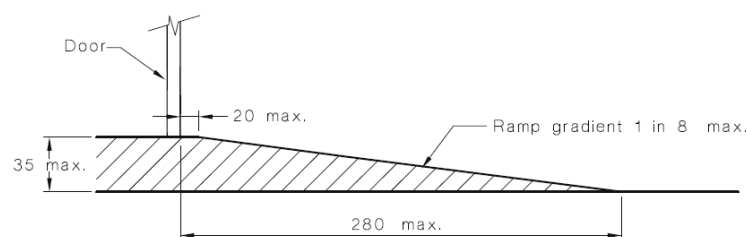
- 3.10. Door controls shall be located:
- (i) Door handles: 900-1100mm above FFL;
 - (ii) Panic bars on egress routes: 900-1200mm above FFL;
 - (iii) Intercoms, push buttons and the like: 900-1250mm above FFL and minimum 500mm from an internal corner;
 - (iv) Handles on sliding doors shall be not less than 60mm from the door jamb or doorstop in the open or closed position;
 - (v) Manual controls to power-operated doors (push buttons) shall be 1-2m from the door leaf (hinged or cavity-sliding doors) or clear of a surface-mounted sliding door in the open position.

Note 1: this is not applicable in early childhood centres, swimming pools and the like.

Note 2: Per BCA 2019 Clause D2.21, push buttons for emergency release power operated doors shall comply with item (iv) above. Braille and tactile signage in accordance with Clause 3 and 6 of Spec. D3.6 of the BCA is also required.

- 3.11. Door operational forces shall be not more than 20 N.
Note: If this cannot be achieved, the subject door shall be automated, or power operated.

- 3.12. A threshold ramp may be employed to address a maximum 35mm rise / FFL difference. Threshold ramp shall be in accordance with Clause 10.5 of AS1428.1-2009.

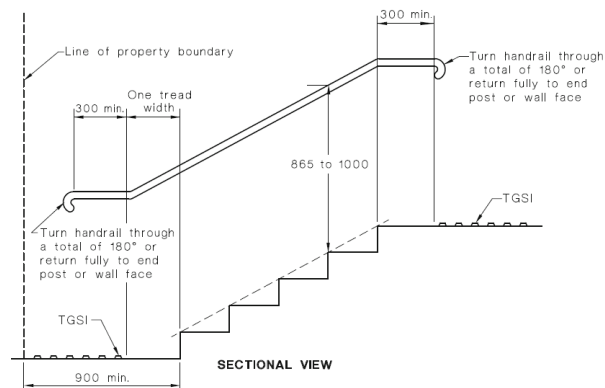


Note: Where ramp edges are not enclosed by walls/other side barrier, ensure ramp edges are splayed at 45 degrees.

4. STAIRWAYS

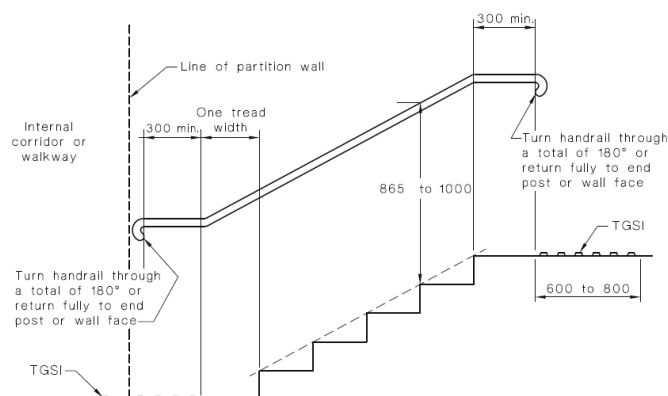
4.1. The requirements of this section shall apply to all stairways for general circulation and to external (non-fire isolated) egress stairways.

4.2. Stairs located at site boundary shall be recessed (900mm min. from boundary) to allow required handrail extensions and TGSIs to not protrude into transverse path of travel.



4.3. Stairs adjacent to internal corridors shall be recessed to allow required handrail extensions & termination to not protrude into transverse path of travel. The set-back shall be:

- (i) 1 tread width plus handrail extension/turn down (23enterl. 650mm) at the bottom of a flight of stairs;
- (ii) Handrail extension/turn down (23enterl. 400mm) at the top of a flight of stairs.



4.4. Minimum 1m clearance required between handrails.

4.5. Stairways shall have closed risers.

4.6. Stair nosings shall not project beyond the face of the riser. Risers shall be vertical or splay backwards a max. 25mm.

4.7. In order to achieve consistent height of the handrail along stairways, an offset tread is required at the bottom of the flight, as shown in Figure 28 of AS1428.1-2009.

4.8. Handrails compliant with Clause 12 of AS1428.1-2009 shall be provided to both sides of stairs. Refer to handrail section below for handrail requirements.

4.9. Handrail extensions are required at landings in accordance with the above:

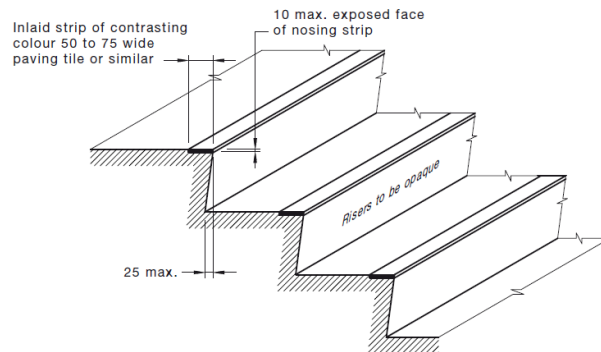
- (i) At the top of a flight of stairs: min. 300mm horizontal extension past the nosing;
- (ii) At the bottom of a flight of stairs: one tread depth parallel to the line of nosings + min. 300mm horizontal extension;
- (iii) Where the inner handrail is continuous at landings, the 300mm horizontal handrail extension is not required.

4.10. Provide warning tactile ground surface indicators (TGSIs) stairs landings in accordance with AS/NZS1428.4.1:2009. Refer to TGSIs section below for TGSIs requirements.

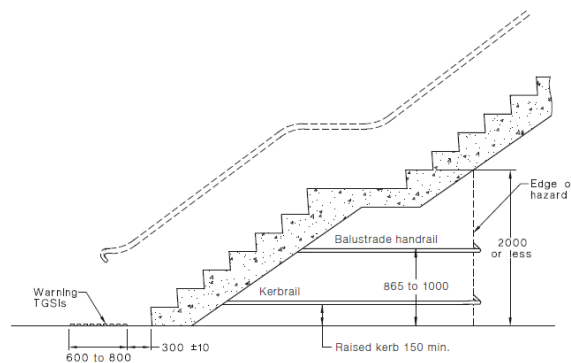
4.11. Provide contrasting step nosing strips on all stair treads compliant with AS1428.1 as follows:

4. STAIRWAYS

- (i) Step nosing strips to be across full width of stair, between 50-75mm wide, in a continuous colour solid strip with 30% luminance contrast to background surface.
- (ii) Step nosing strips to be located on edge of tread (15mm max. setback if applied) and not extend onto risers more than 10mm. (if exposed).



- 4.12. Where people can traverse under open stairs, a suitable barrier to the underside of the stairs shall be provided such that people do not traverse where the headroom is less than 2 meters. An example of a suitable barrier is illustrated in Figure 2.6(A) of AS/NZS1428.4.1:2009.

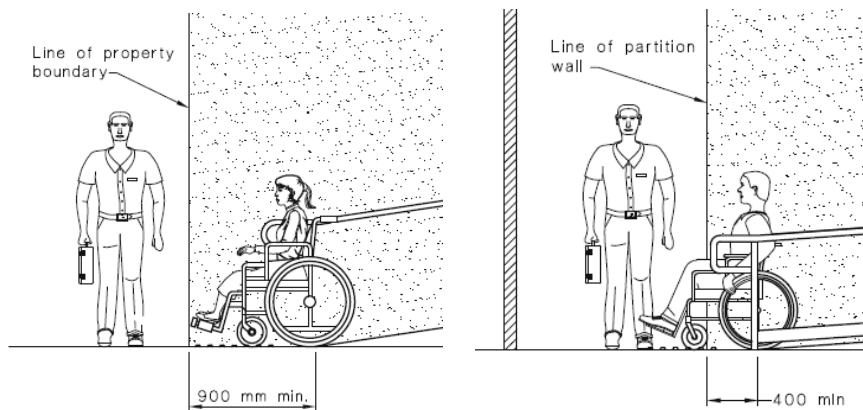


5. WALKWAYS

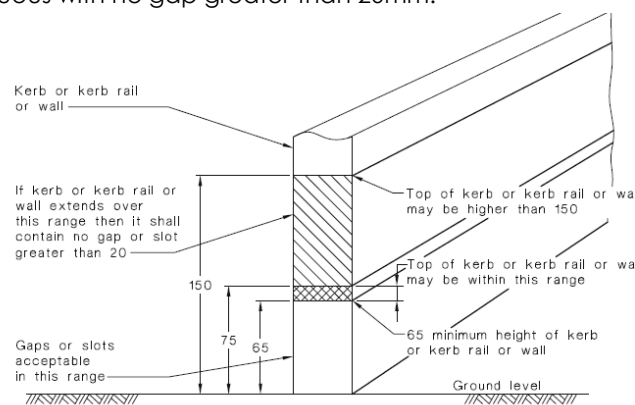
- 5.1. 1:20 walkways shall have suitable landings at 15m maximum intervals.
Note: for gradients other than 1:20, the maximum interval between landings shall be confirmed with Design Confidence.
- 5.2. Walkways shallower than 1:33 are not required to be provided with landings.
- 5.3. Landings shall be:
- (i) Minimum 1200mm length where there is no change in direction;
 - (ii) Where there is a change in direction, refer to Section 2 – Paths of Travel above;
 - (iii) Where there is a doorway, the landing shall be capable of accommodating the required doorway circulation spaces.
- 5.4. A suitable barrier (edge protection) shall be provided to both sides of the walkway. Suitable barriers include:
- (i) Floor/ ground surface to extend 600mm min. width at same grade in firm and level of the walkway surface, being of a different material;
 - (ii) Kerb in accordance with Figure 18 of AS1428.1-2009;
 - (iii) Kerb rail + handrail in accordance with Figure 19 of AS1428.1-2009;
 - (iv) Low wall min. 450mm height.
- Note: The top of kerbing must not be within 75-150mm range above FFL to minimise risk of wheelchair footplate entrapment.*
- 5.5. Curved walkways have 1500mm min. clear width. The minimum inside radius shall be in with Figure 20 of AS1428.1-2009.

6. RAMPS

- 6.1. Ensure a series of connected ramps does not exceed 3.6m vertical rise, in accordance with BCA Clause D3.11.
- 6.2. A ramp shall be not steeper than 1:14 and shall be constant throughout.
- 6.3. 1:14 walkways shall have suitable landings at 9m maximum intervals.
Note: for gradients other than 1:14, the maximum interval between landings shall be confirmed with Design Confidence.
- 6.4. Ramp landings shall be not steeper than 1:40.
- 6.5. Landings shall be:
(i) Minimum 1200mm length where there is no change in direction;
(ii) Where there is a change in direction, refer to Section 2 – Paths of Travel above;
(iii) Where there is a doorway, the landing shall be capable of accommodating the required doorway circulation spaces.
- 6.6. Ramps shall be set back from a transverse path of travel, being:
(i) Minimum 900mm set back at property boundary;
(ii) Minimum 400mm set back other than at property boundary.



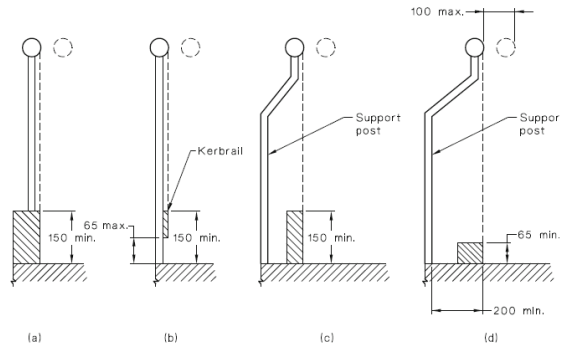
- 6.7. Handrails shall be provided on both sides of a ramp.
- 6.8. Handrail extensions are required at landings in accordance with the above:
(i) At the top and bottom landings: min. 300mm horizontal extension past the nosing;
(ii) Where the inner handrail is continuous at landings, the 300mm horizontal handrail extension is not required.
- 6.9. Ramps and intermediate landings shall have kerbs or kerb rails on both sides, being:
(i) Kerbing to be between 65-75mm height above FFL, or;
(ii) At least 150mm height above FFL;
(iii) The top of kerbing must not be within 75-150mm range above FFL to 25enterli risk of wheelchair footplate entrapment. If kerbing extends within 75-150mm range between it must be continuous with no gap greater than 20mm.



6. RAMPS

Note: where a handrail is wall mounted, the wall serves as a suitable side barrier, subject to the ramp-side face of the handrail being not more than 100mm from the wall (refer to Fig. 19 (d)).

- 6.10. The kerb to be suitably located in relation to handrail (and vertical supports if provided) i.e. Internal face of kerb in line with internal face of handrail or up to 100mm max. off-set inside the ramp, compliant with AS1428.1-2009 fig. 19.



- 6.11. Provide warning tactile ground surface indicators (TGSI's) at top and bottom of ramps in accordance with AS/NZS1428.4.1:2009.
At intermediate landings, TGSIs are only required where the outer handrail is not continuous.
- 6.12. Curved ramps shall have 1500mm min. clear width with appropriate min. inside curve radius compliant with AS1428.1-2009 fig. 20.

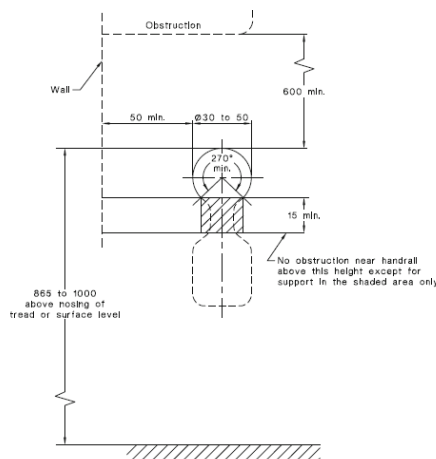
7. KERB RAMPS

- 7.1. Ensure kerb ramps have 1:8 gradient, 190mm max. height, 1000mm min. width and 1520mm max. length, compliant with AS1428.1-2009 fig. 23 and 24.
NB. Under AS1428.4.1-2009 kerb ramps with gradients less steep than 1:8.5 are not generally detectable by people with vision impairment.

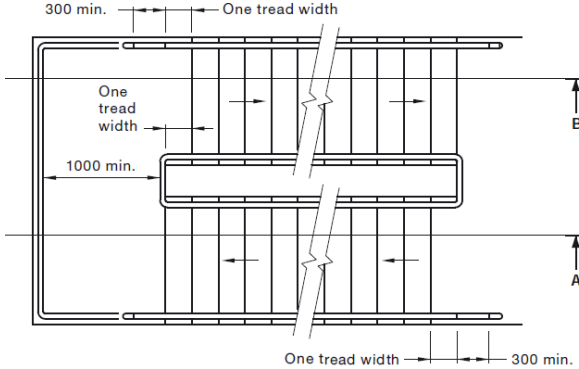
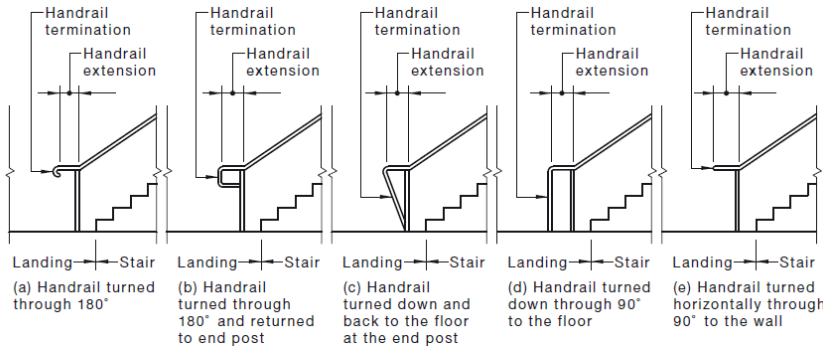
8. HANDRAILS

- 8.1. All stairs and ramps shall be provided in accordance with Clause 12 of AS1428.1-2009, including fire-isolated stairways and ramps.
Note: for stairs/ramps in areas afforded the concession under D3.4, handrails are only required to comply with Clause D2.17 of the BCA.

- 8.2. The cross section of handrail shall be circular/elliptical handrails have 30mm – 50mm diameter, with 270-degree clear arc around top of handrail (extending for 600mm min. height) compliant with Figure 29 of AS1428.1-2009.

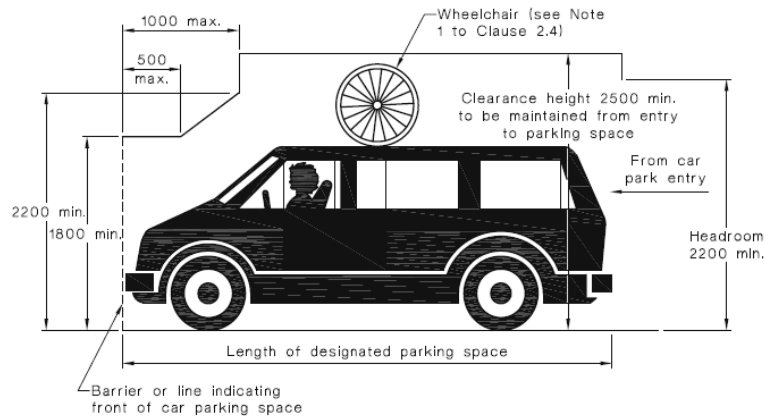


- 8.3. Handrails shall be installed at a consistent height between 865mm – 1000mm height above step nosing or FFL ramp surface.

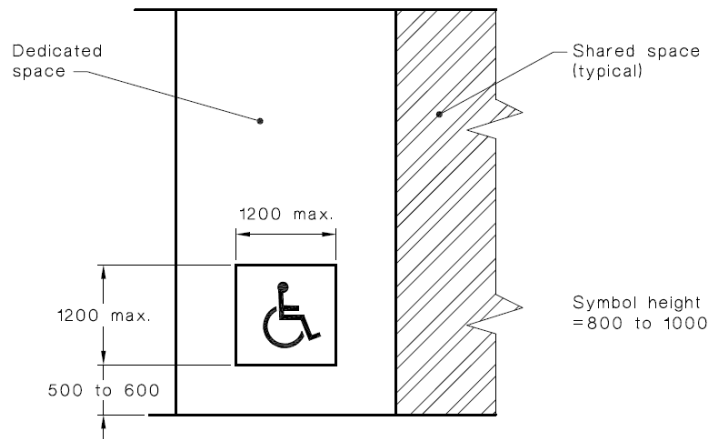
8. HANDRAILS	
	<i>NB. The specified height should allow for construction tolerance as outside of this range will be non-compliant.</i>
8.4.	Where a balustrade for fall protection is required at a height above 1m, both the balustrade and the handrails shall be provided.
8.5.	Handrails shall have no vertical sections.
8.6.	<p>In order to achieve consistent height of the handrail along stairways, an offset tread is required at the bottom of the flight, as shown in Figure 28 of AS1428.1-2009.</p> 
8.7.	Handrails shall be installed no less than 50mm away from an adjacent side wall/ obstruction (finger clearance).
8.8.	Refer to Stairs and Ramps sections for the requirements relating to handrail extensions.
8.9.	<p>Handrail ends shall be turned through a total of 180° OR to the ground OR returned fully to the end post/wall face. Suitable handrail ends are shown in Figure 26 (C) of AS1428.1-2009.</p>  <p><i>Note: fire-isolated stairs and ramps are not required to be provided with handrail extensions at landings, however handrail ends shall be in accordance with Figure 26 (C) of AS1428.1-2009 as shown above.</i></p>
8.10.	The inner handrail shall always be continuous at landings.
9. ACCESSIBLE PARKING	
9.1.	<p>Minimum required dimensions:</p> <ul style="list-style-type: none"> (i) Dedicated parking space shall be 2400mm W x 5400mm L (minimum); (ii) A shared area shall be provided to one side of the dedicated parking space, being 2400mm W x 5400mm L (minimum); (iii) A shared area shall be provided at one end of the parking space, being 2400mm W x 2400mm L.
9.2.	The ground surface shall be firm, plane, slip resistant and traversable by people with disabilities (hence surfaces such as loose gravel and grass are not acceptable).
9.3.	Accessible parking spaces and shared areas shall at the same grade and the ground surface shall be not steeper than 1:40 (1:33 for external bitumen surfaces is acceptable).
9.4.	Vertical clearance leading to the accessible parking spaces shall be not less than 2200mm.
9.5.	Vertical clearance at the accessible parking spaces and associated shared areas shall be not less than 2500mm.

9. ACCESSIBLE PARKING

Note: reduced headroom may be permitted in accordance with Figure 2.7 of AS/NZS2890.6:2009.



- 9.6. An accessible parking space shall be provided with pavement markings for identification, being the white symbol of access inside a blue rectangle with dimensions in accordance with Figure 3.1 of AS/NZS2890.6:2009.



- Line markings shall be yellow, have a slip resistance surface and shall not be raised;
- The parking spaces and shared areas shall be outlined on all sides with an unbroken line 80-100mm wide, except where delineated by a kerb, barrier or wall;
- The shared areas shall be marked with diagonal stripes at an angle $45 \pm 10^\circ$ to the side of the space. The diagonal stripes shall be 150-200mm wide and spaced 200-300mm;
- No shared area markings shall be placed in trafficked areas (this is generally applicable to the 2400x2400mm shared area).

Note: the requirement for space identification is not applicable where:

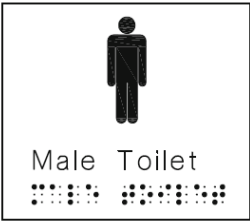
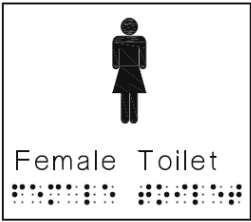

- A total of not more than 5 parking spaces is provided;
- An accessible parking space is privately owned parking space for people with disabilities associated with a single residence and intended primarily for use by the occupants of that residence (i.e. adaptable units).



- 9.7. A bollard shall be provided within the shared area located in accordance with Figure 2.3 of AS/NZS2890.6:2009.

- 9.8. Residential accessible parking spaces are subject to the requirements of AS4299-1995.
Note: a parking space 3800mm W x 5400mm L is generally suitable for adaptable units.

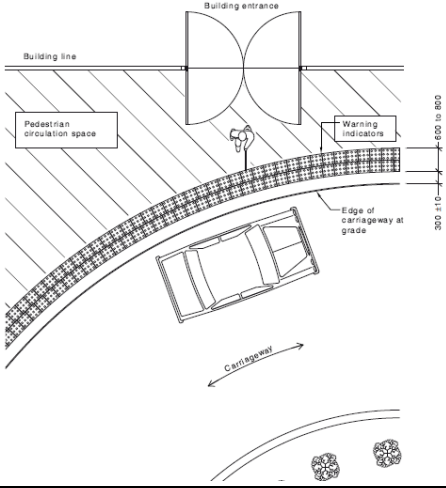
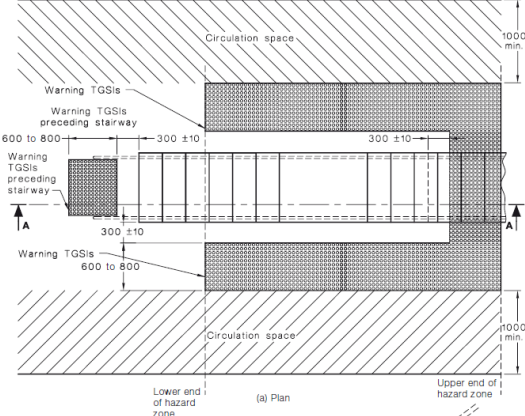
10. SIGNAGE

- 10.1. Braille and tactile signage will be required to:
- Identify each sanitary facility, including an accessible sanitary facility and a sanitary compartment suitable for people with ambulant disabilities;

10. SIGNAGE	
	<ul style="list-style-type: none"> (ii) Identify each space provided with hearing augmentation; (iii) Within each space provided with hearing augmentation; (iv) Identify each door required by BCA Clause E4.5 to be provided with an exit sign; (v) Identify a sanitary compartment suitable for people with ambulant disabilities; (vi) At entry doors to airlocks containing either accessible and/or ambulant WCs, identifying each facility provided within.
10.2.	Braille and tactile directional signage will be required at: <ul style="list-style-type: none"> (i) A non-accessible pedestrian entrance to direct a person to the nearest accessible entrance; (ii) A sanitary bank which is not provided with an accessible sanitary facility to direct a person to the nearest accessible sanitary facility.
10.3.	Signage required to comply with Clause D3.6 of the BCA shall be in accordance with BCA Spec. D3.6 and Clause 8 of AS1428.1-2009.
10.4.	Per BCA 2019, signage complying with Clause 3 and 6 of Specification D3.6 shall be provided to identify the latch-operation device (manual controls for power-operated doors).
10.5.	At standard sanitary facilities, the signage shall include: <ul style="list-style-type: none"> (i) Minimum required message: "Male Toilet" or "Female Toilet", as applicable; (ii) Raised & visual versions of the male and female symbols; (iii) Braille that fully describes the information displayed by symbols and text. <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div data-bbox="536 958 786 1178" style="border: 1px solid black; padding: 10px; text-align: center;">  </div> <div data-bbox="906 958 1157 1178" style="border: 1px solid black; padding: 10px; text-align: center;">  </div> </div>
10.6.	At an accessible sanitary facility, the signage shall include: <ul style="list-style-type: none"> (i) Minimum required message: "Unisex Toilet RH" or "Unisex Toilet LH" (as applicable) (ii) Information if the toilet pan is suitable for RH or LH transfer; (iii) Raised & visual versions of the international symbol of access; (iv) Raised & visual versions of the male and female symbols; (v) Braille that fully describes the information displayed by symbols and text. <div style="text-align: center; margin-top: 20px;">  </div>
10.7.	At an ambulant sanitary compartment, the signage shall include: <ul style="list-style-type: none"> (i) Minimum required message: "Ambulant Male Toilet" or "Ambulant Female Toilet", as applicable; (ii) Raised & visual versions of the male and female ambulant symbols; (iii) Braille that fully describes the information displayed by symbols and text.

10. SIGNAGE	
	
10.8.	<p>At exits, the signage shall include:</p> <ul style="list-style-type: none"> (i) The word "Exit"; and (ii) The word "Level" and the floor level number OR a floor level descriptor OR a combination of both the number and the descriptor; (iii) Braille that fully describes the information display by text.
10.9.	<p>At the door to rooms/spaces provided with hearing augmentation, the signage shall include raised & visual versions of the international symbol of deafness.</p>
10.10.	<p>Within the room/spaces provided with hearing augmentation, the signage shall include:</p> <ul style="list-style-type: none"> (i) The type of hearing augmentation; (ii) The area covered within the room; (iii) If receivers are being used & where they can be obtained.
10.11.	<p>Directional signage shall include:</p> <ul style="list-style-type: none"> (i) A wayfinding arrow that indicates the location of the subject accessible facility (being an accessible toilet or accessible entry); (ii) Raised & visual versions of the international symbol of access; (iii) Raised text that describes the subject accessible facility; (iv) If the accessible path of travel to the subject accessible facility is on a different level, include a symbol to denote travel via lift (if applicable). <div style="text-align: center;">  </div>
10.12.	<p>Location of signage:</p> <ul style="list-style-type: none"> (i) Braille and tactile components shall be at a height of 1200-1600mm above FFL; and (ii) On the wall on the latch-side of the door, leading edge of the sign 50-300mm from the architrave, except at ambulant sanitary facilities; (iii) Where b. is not possible, signage shall be on the door itself; and (iv) At ambulant sanitary facilities, the signage shall be placed on the door.
10.13.	<p>Minimum 30% luminance contrast between the wall/door to the backplate of the sign and between the backplate and the symbols, tactile and braille contained in the sign.</p>
11. HEARING AUGMENTATION	
11.1.	<p>Provide hearing augmentation in the following areas if an inbuilt amplification system is installed (except one used for emergency warning systems only):</p> <ul style="list-style-type: none"> (i) Rooms in Class 9 buildings;

11. HEARING AUGMENTATION	
	(ii) Auditoriums, conference and meeting rooms, judicatory, and; (iii) Service counters screened to the public (e.g. reception, ticket/teller booths).
11.2.	Hearing loops are required to at least 80% of floor area with inbuilt amplification system.
11.3.	For Class 9b buildings, any screen or scoreboard that can display public announcements, to be capable of supplementing the public address system (excluding emergency warning only).

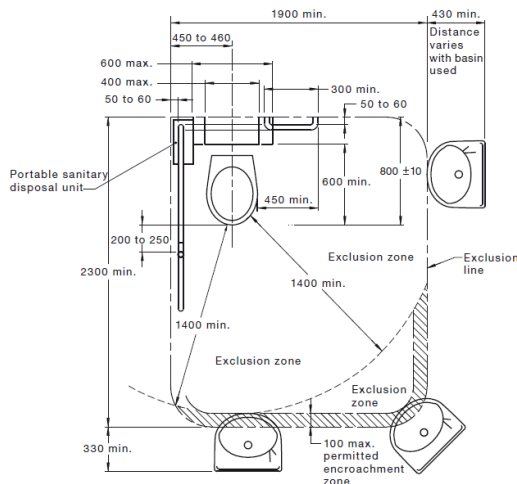
12. TACTILE GROUND SURFACE INDICATORS (TGSIs)	
12.1.	Ensure that TGSIs are slip-resistant and achieve minimum luminance contrast against background surface in accordance with the following: (i) Integrated TGSIs (i.e. tiles) require 30% min. luminance contrast. (ii) Discrete TGSIs (i.e. buttons) require 45% min. luminance contrast. (iii) Composite TGSIs with 2 materials/colours requires 60% min. luminance contrast.
12.2.	Ensure that warning TGSIs extend across the full width of the path of travel and commence 300mm from the edge of stairs, ramps etc. <i>Note 1: tactile indicators are not required where the gradient is not steeper than 1:20 (walkways) or at step ramps and kerb ramps.</i> <i>Note 2: tactile indicators are not required at fire-isolated stairs and ramps.</i> <i>Note 3: tactile indicators are required at external (non-fire-isolated) egress stairs and ramps.</i>
12.3.	Ensure that warning TGSIs have between 600mm – 800mm depth at open areas, or at landings >3m length and/or when handrail is discontinuous.
12.4.	Ensure that warning TGSIs have between 300mm – 400mm depth at enclosed landings (<3m) when external handrail is discontinuous.
12.5.	Where a pedestrian pathway and vehicular way are at the same level (i.e. no kerb provided), warning tactile indicators shall be provided. 
12.6.	TGSIs may be provided in lieu of a barrier to the underside of stairs where the headroom is less than 2 meters. 

13. SWIMMING POOLS

- | | |
|-------|--|
| 13.1. | <p>Access is required 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 1b building or a sole-occupancy unit in a Class 2 or Class 3 building.</p> <p>Accessible entry/exit in accordance with Part D5 of the BCA is required.</p> |
| 13.2. | <p>An accessible entry/exit must be by means of:</p> <ul style="list-style-type: none"> (i) a fixed or movable ramp and an aquatic wheelchair; or (ii) a zero depth entry at a maximum gradient of 1:14 and an aquatic wheelchair; or (iii) a platform swimming pool lift and an aquatic wheelchair; or (iv) a sling-style swimming pool lift. |
| 13.3. | Where a swimming pool has a perimeter of more than 70 m in length, at least one accessible water entry/exit must be provided by a means specified above (16.2) (a), (b) or (c). |
| 13.4. | Latching devices on gates and doors forming part of a swimming pool safety barrier need not comply with AS 1428.1-2009. |

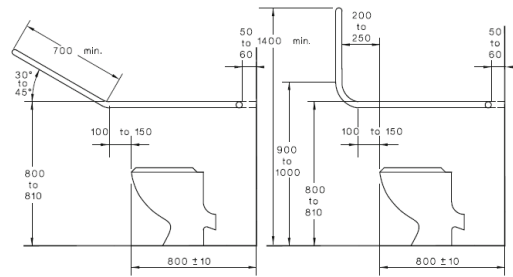
14. ACCESSIBLE SANITARY FACILITIES

- | | |
|-------|--|
| 14.1. | Provide 1 unisex accessible toilet at each bank of male/female toilets on each storey compliant with BCA Table F2.4a.
<i>NB. Where more than 1 toilet bank on each storey provide an accessible facility at 50% of banks.</i> |
| 14.2. | Ensure a balance of left- and right-handed WC pans within the building. |
| 14.3. | Circulation space associated with the toilet pan min. 1900mm W x 2300mm L. The washbasin is permitted to encroach a max. 100mm within the WC circulation space in accordance with Figure 43 of AS1428.1-2009. |

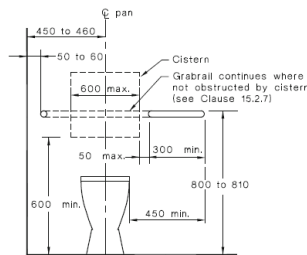


- | | |
|--------|--|
| 14.4. | The required circulation spaces associated with toilet pan, washbasin, shower and door are allowed to overlap. |
| 14.5. | The washbasin is permitted to encroach into the doorway circulation space, however a min. 300mm is required between the door swing (for a hinged door) and the washbasin. Other fixtures such as toilet pan and shower seat are not allowed within the door circulation. |
| 14.6. | The centreline of the accessible toilet pan shall be 450-460mm from side wall. |
| 14.7. | Toilet projection from the back wall to the front of the toilet seat shall be 800mm \pm 10mm.
<i>Note: This is a critical dimension.</i> |
| 14.8. | The height to top of the toilet seat shall be 460-480mm above FFL. |
| 14.9. | The toilet seat shall achieve 30% luminance contrast against background (e.g. pan, wall or floor surface). |
| 14.10. | Provide grabrails on wall of toilet at a height of between 800-810mm (to top of grabrail) above FFL. |

14. ACCESSIBLE SANITARY FACILITIES



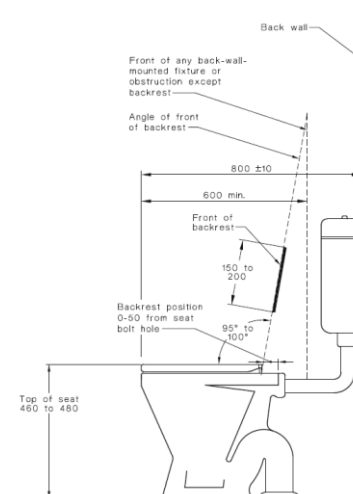
(i) Option A (ii) Option B
(a) Side view showing optional systems for grabrail at sides of pan



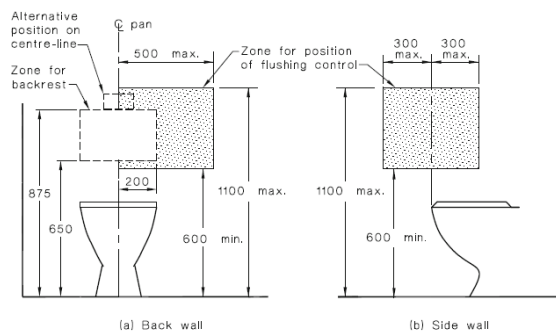
Note: If concealed cistern used, WC grab-rails are to be continuous across side and rear walls. If exposed cistern used, rear grabrail to commence 50mm max. from cistern edge.

- 14.11. Provide angled toilet backrest (350-400mm W x 150-200mm H) installed between 120-150mm height from top of pan seat and 50mm max. distance from seat bolt hole.

NB. No toilet lid to be provided as this impedes use of back rest.



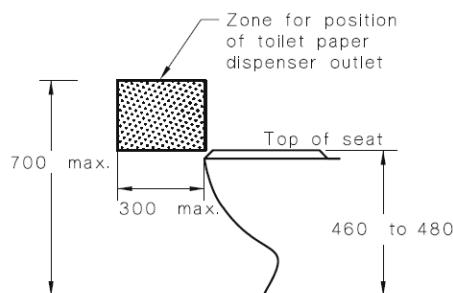
- 14.12. Flushing controls shall be located in accordance with Figure 40 of AS1428.1-2009.



(a) Back wall (b) Side wall

- 14.13. Toilet roll holder to be installed on adjacent wall to toilet at 600mm centre-line height from FFL within 300mm max. length from front of pan and no closer than 50mm to grabrail.

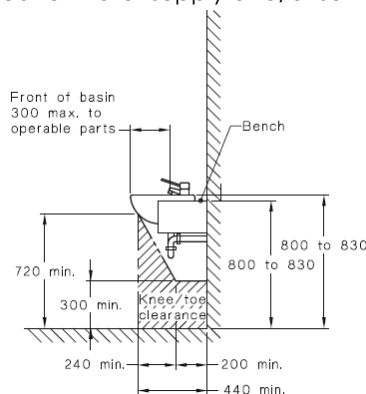
14. ACCESSIBLE SANITARY FACILITIES



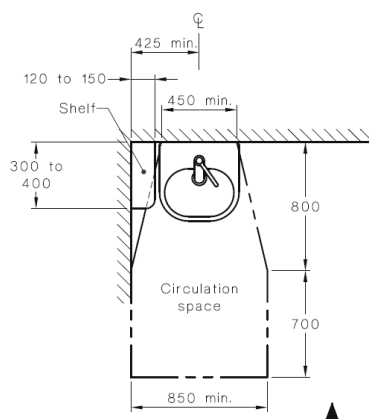
14.14. The centreline of the basin shall be min. 425mm from side wall.

14.15. The height of the basin shall be 800-830mm from FFL with lever action taps and insulation of water pipes.

14.16. Provide basin with a 430mm min. depth projection (from back wall to front of the basin) and suitable wheelchair knee/toe height clearance, compliant with Figure 44 of AS1428.1-2009. Knee/toe clearance shall be clear of water supply and/or sewage pipes.



14.17. Washbasin shall have min. 450mm width and circulation space in accordance with Figure 44 of AS1428.1-2009.



14.18. 300mm max. distance from the front of the basin to the operable part of taps.
Note: operable parts of taps shall be understood as the tap handle (for its full arc of operation) OR the position where a sensor is reliably activated AND the water spout.

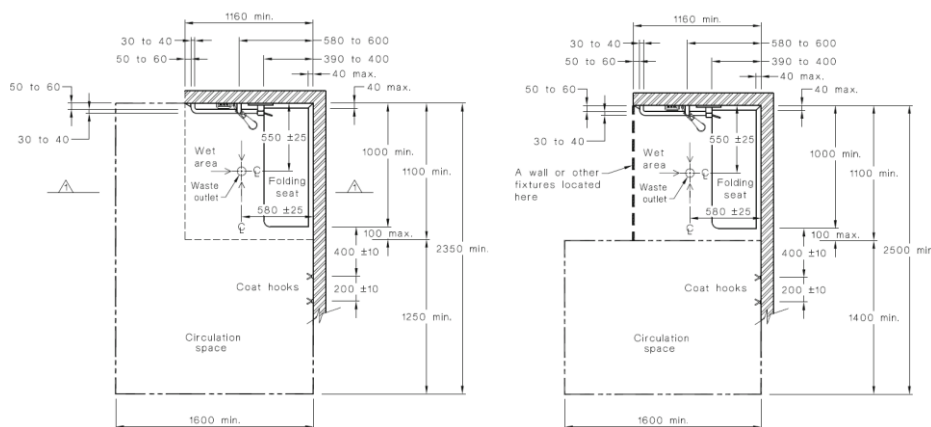
14.19. Provide separate fixed shelf (120mm – 150mm W x 300mm – 400mm L) next to wash basin, installed at 900mm – 1100mm above FFL.
 Shelf space may also be provided as a vanity top, min. 120mm W x 300mm L.

14.20. Provision of soap dispenser, hand drier or paper towel dispenser shall be installed at a height of 900-1100mm to the operative component.
Note: it is recommended that soap dispenser and hand dryer/paper towel dispenser are within reach from the washbasin (for example, that would allow for a wheelchair user not to need to move away from washbasin to dry hands).

14.21. Provide mirror above washbasin, with base installed at 900mm max. above FFL and extending to a height not less than 1850mm. The width of the mirror shall be min. 350mm.

14. ACCESSIBLE SANITARY FACILITIES

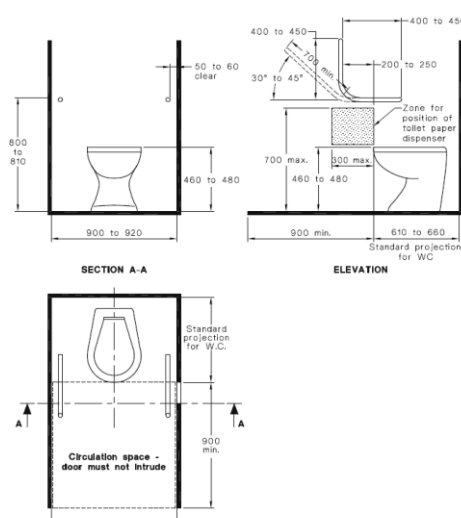
- 14.22. 1 x clothes hanging device to be installed between 1200-1350mm from FFL and at least 500mm from an internal corner.
- 14.23. Door shall include an in-use indicator and a bolt/catch that can be opened from outside in an emergency. If snib turn is used, the handle shall be 45mm min from centre.
- 14.24. A baby change table (if provided) cannot impede into required circulation spaces (when folded up). The top of table to be installed at 820mm height with 720mm min. under bench clearance above FFL.
- 14.25. Light switches to be installed 900-1100mm above FFL and 500mm min. from internal corner.
- 14.26. GPO's to be installed 600-1100mm above FFL and 500mm min. from internal corner.
- 14.27. Rocker action/toggle type switches at least 30mm x 30mm dimensions are required to assist people with dexterity impairment.
- 14.28. Accessible shower shall be hobless/step-free.
- 14.29. Minimum dimensions of the shower recess 1100mm (side wall) x 1160mm (back wall).
- 14.30. The circulation space associated with the shower shall be in accordance with Figure 47 of AS1428.1-2009.



- 14.31. All accessible showers have shower rail/curtain installed.
Note: if shower screens are proposed, it shall be clear of the minimum circulation space (min. 1600 x 2350mm). Moreover, the shower door shall be in accordance with Clause 13 of AS1428.1-2009.
- 14.32. The height to the top of shower seat shall be 470-480mm above FFL.
- 14.33. Provide a horizontal grab rail (660mm min), to be placed beneath the vertical shower support rail, between 390-400mm from side wall (leading edge of grabrail aligned with end of shower seat), installed 800-810mm height from FFL.
- 14.34. Provide vertical shower support rail to start between 1000-1100mm from FFL. The top of the shower support rail to finish between 1880-1900mm FFL. The rail to be placed between 580-600mm from the side wall.
- 14.35. Ensure the shower taps and soap holders to be placed between 900mm – 1100mm from FFL. The shower taps and soap holders shall be 300-800mm from side wall and there shall be 50mm clear from the vertical support grabrail.
- 14.36. Hand-held shower head required, with flexible hose min. 1500mm in length.
- 14.37. The height of the hose wall outlet to be 700±5mm height above FFL to ensure suitable hose length when showering. A suitable back-flow prevention device shall be provided.
- 14.38. Provide 2 x clothes hanging devices required outside the shower recess. First hook shall be 400mm from the edge of the toilet seat and the second hook shall be 600mm from the edge of the seat, installed between 1200-1350mm from FFL.

15. AMBULANT SANITARY FACILITIES

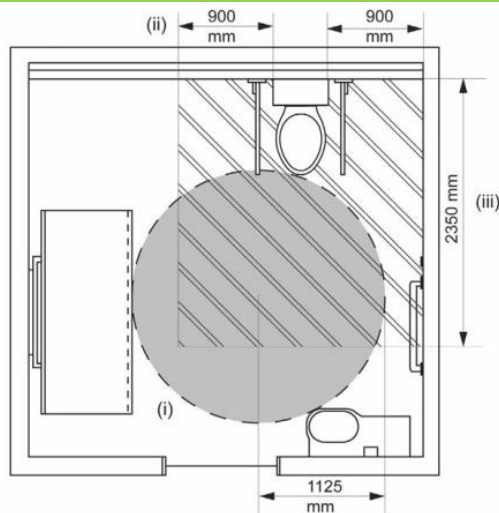
- 15.1. Ambulant facilities for males and females shall be provided at each bank of toilets where there are one or more toilets in addition to an accessible WC.

15. AMBULANT SANITARY FACILITIES	
15.2.	Minimum 900mm x 900mm circulation area shall be provided between successive door swings in airlocks/vestibules on path of travel leading to ambulant toilets.
15.3.	Minimum 900mm x 900mm circulation area shall be provided outside the ambulant cubicles.
15.4.	The cubicle shall be between 900mm – 920mm clear width with WC pan centred (i.e. 450-460mm set out).
15.5.	The cubicle door shall have a min. 700mm clear opening width.
15.6.	900mm x 900mm clear area shall be provided in front of WC pan and clear of door swing.
15.7.	Projection of WC (distance from back wall to the front of the seat) shall be 610-660mm.
15.8.	Height to top of pan seat shall be 460-480mm above FFL.
15.9.	Ambulant cubicle door shall be provided with in-use indicator and bolt/catch that is able to be opened from outside (in emergency). If snib catch used, the handle shall be 45mm min. length from centre.
15.10.	Grabrails provided on both sides of cubicle at 800mm – 810mm height (to top of grabrail) from FFL. Refer to Figure 53 (A) of AS1428.1-2009 for further guidance.
	
15.11.	Toilet roll holder to be placed at 700mm max. height from FFL and 300mm max. distance from front of pan on adjacent wall, no closer than 50mm to grabrails.
15.12.	Clothes hook to be installed between 1350mm – 1500mm from FFL.

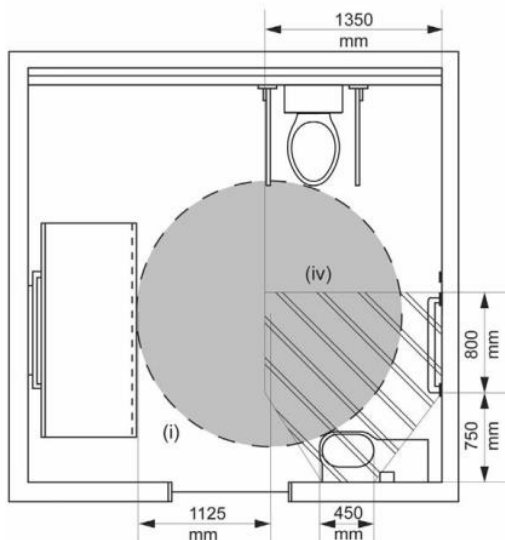
16. GRABRAILS	
16.1.	Grabrails shall have 30-40mm outside diameter.
16.2.	Grabrails shall be installed 800-810mm height to the top of grabrail.
16.3.	Grabrails shall be able to withstand a force of 1100N applied at any position and in any direction.
16.4.	The clearance between the face of the grabrail and the wall shall be 50-60mm (finger/knuckle clearance).
16.5.	270-degree clear arc around top of handrail required (extending for 600mm min. height above the grabrails).

17. ACCESSIBLE ADULT CHANGE FACILITIES	
17.1.	Circulation spaces in front of and to the side of the toilet pan to be in accordance with BCA Specification F2.9 Figure 2, Diagram a.

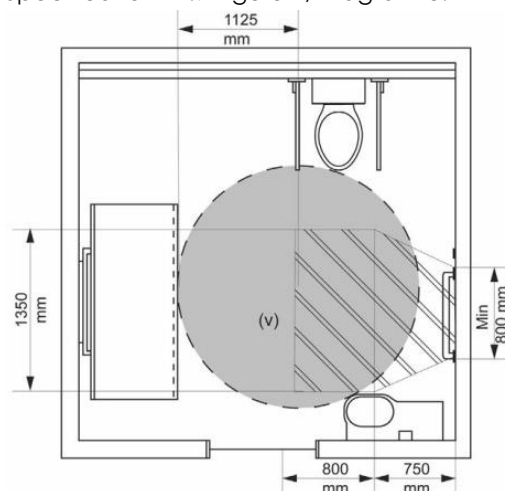
17. ACCESSIBLE ADULT CHANGE FACILITIES



- 17.2. Circulation space and turning circle space for washbasin to be in accordance with BCA Specification F2.9 Figure 2, Diagram b.



- 17.3. Circulation space and turning space for changing rails to be in accordance with BCA Specification F2.9 Figure 2, Diagram c.



- 17.4. Notes in relation to Figure 2.

- The Roman numerals shown in Figure 2 indicate the following required circulation spaces:
 - Turning space: a full circle of 1125 mm radius.
 - Each side of the pan: 900 mm (measured from each edge of the pan).

17. ACCESSIBLE ADULT CHANGE FACILITIES

	<ul style="list-style-type: none"> (iii) In front of the pan: 2350 mm (measured from the wall behind the pan, and therefore includes the pan itself). (iv) For a washbasin: the width of the basin (450 mm) increasing to a width of 1350 mm measured at a distance of 750 mm out from the wall against which the washbasin is mounted then continuing at that width for a further 800 mm (to a total of 1550 mm out from the wall). (v) For changing rails: the width of the rails increasing to a width of 1350 mm at a distance of 750 mm out from the wall to which the rails are fixed then continuing at that width for a further 800 mm (to a total of 1550 mm out from the wall). b) All required circulation spaces must extend for a minimum height of 2000 mm above finished floor level. c) Required circulation spaces may be overlapped. d) The floor surface must have a slip resistance classification of not less than R10 or P3 when tested in accordance with AS 4586.
17.5.	<p>The hoist must—</p> <ul style="list-style-type: none"> a) provide a constant charge in-line room coverage hoist system (also known as an “XY” system or gantry) including 2 parallel fixed rails and a moving traverse rail; and b) provide coverage over the entire room; and c) have a maximum safe working load of not less than 180 kg; and d) be capable of sustaining a static load of not less than 1.5 times the rated load; and e) have a minimum lifting height of 2100 mm.
17.6.	<p>Toilet pan, seat, backrest and grabrails</p> <ul style="list-style-type: none"> a) The toilet pan must be of the centrally located (“peninsula-type”) design. b) The toilet pan must be installed so that— <ul style="list-style-type: none"> (i) the front edge of the pan is 800 mm (± 10 mm) from the rear wall; and (ii) the top of the seat is between 460 mm and 480 mm above finished floor level; and (iii) there is a minimum clearance of 900 mm, measured horizontally, between each side of the pan and any adjacent wall or privacy screen. c) The toilet seat must— <ul style="list-style-type: none"> (i) be of the full-round type (not open-fronted) with minimal contours to the top surface; and (ii) be securely fixed in position when in use; and (iii) have seat fixings that provide lateral stability to the seat when the seat is in use; and (iv) be load-rated to 150 kg; and (v) have a minimum luminance contrast of 30% against the pan, wall and floor; and (vi) remain in the fully upright position when raised. d) Hand-operated flushing controls must— <ul style="list-style-type: none"> (i) be located on the centreline of the toilet, at a height of— <ul style="list-style-type: none"> A. not less than 600 mm; and B. not more than 1100 mm above finished floor level; and (ii) not be located within the area required for any grabrails or backrest; and (iii) have the button mounted so that it is proud of the wall surface and activates the flushing operation before the button becomes level with the surrounding surface. e) An automatically activated flushing system need not comply with the requirements of (d). f) The backrest must— <ul style="list-style-type: none"> (i) be capable of withstanding a force, in any direction, of not less than 1100 N; and (ii) have a minimum height, between the lower edge of the backrest and the top of the seat, of between 120 mm and 150 mm; and (iii) have a vertical height, between the upper and lower edges of the backrest, of between 150 mm and 200 mm; and (iv) have a width of between 350 mm and 400 mm; and (v) be positioned such that the face of the backrest achieves an angle of between 95° and 100° back from the seat, when the seat is in use. g) Grabrails must be installed adjacent to each side of the pan and must be— <ul style="list-style-type: none"> (i) of the drop-down type; and (ii) located such that—

17.	ACCESSIBLE ADULT CHANGE FACILITIES
	<ul style="list-style-type: none"> A. the top of each rail is between 800 mm and 810 mm above finished floor level; and B. the rails are between 750 mm and 770 mm apart, measured centre-to-centre, and equidistant to the 39enterline of the pan; and (iii) at least 850 mm long; and (iv) with a diameter of between 30 mm and 40 mm; and (v) securely fixed to withstand a force, in any direction, of not less than 1 100 N; and (vi) provided with a toilet paper dispenser on one side; and (vii) capable of being lifted up or swung away when not in use, so as to allow unimpeded access to the toilet pan.
17.7.	<p>Washbasin and tap</p> <ul style="list-style-type: none"> a) The washbasin must be installed so that the rim of the basin is between 800 mm and 830 mm above finished floor level. b) Exposed heated water supply pipes must be insulated or located so as not to pose a hazard. c) Water supply or sanitary drainage pipes must not encroach on the space under the basin. d) The washbasin must have an integrated shelf not less than 300 mm long. e) Water taps must have a single lever flick-mixer handle or a sensor plate or the like. f) Where lever handles are provided, they must be installed with a clear space of not less than 50 mm between the tap and any adjacent surface. g) Heated water must be provided and temperature controlled in accordance with Part B2 of NCC Volume Three.
17.8.	<p>Fixtures and fittings</p> <ul style="list-style-type: none"> a) Mirror: <ul style="list-style-type: none"> (i) A vertical mirror must be provided at the washbasin, with a reflective surface that— <ul style="list-style-type: none"> A. is not less than 600 mm wide; and B. has its bottom edge not more than 900 mm above finished floor level; and C. has its top edge not less than 1 850 mm above finished floor level. (ii) If a second vertical mirror is provided in the facility, it must have a reflective surface that— <ul style="list-style-type: none"> A. is not less than 600 mm wide; and B. has its bottom edge not less than 600 mm above finished floor level; and C. has its top edge not less than 1 850 mm above finished floor level. b) Towel dispensers, hand dryers and the like: <p>Towel dispensers, hand dryers, soap dispensers and the like must be operable using one hand, and must be installed with their output or operative components—</p> <ul style="list-style-type: none"> (i) between 900 mm and 1 100 mm above finished floor level; and (ii) not less than 500 mm from any internal corner. c) Soap dispenser: <p>A soap dispenser must be installed above the integrated shelf required by Clause 5(d).</p> d) Clothing hook: <p>A clothing hook must be installed so that it is located—</p> <ul style="list-style-type: none"> (i) at a height of between 1 200 mm and 1 350 mm above finished floor level; and (ii) adjacent to the washbasin; and (iii) not less than 500 mm from any internal corner. e) Sling hook: <p>A sling hook with a minimum projection of 50 mm from the wall must be installed beside the change table at a height of 1 500 mm above finished floor level.</p> <p><i>Explanatory information:</i></p> <p><i>The purpose of the sling hook is to store the sling when it is not in use.</i></p> f) Disposal bins: <ul style="list-style-type: none"> (i) A sanitary disposal bin must be provided in the corner adjacent to the toilet pan. (ii) An incontinence pad disposal bin must be provided in the corner adjacent to the change table.
17.9.	Change Table

17. ACCESSIBLE ADULT CHANGE FACILITIES

- a) The change table must be—
 - (i) permanently installed, with one of the long edges up against a wall and with a retractable safety rail on the opposite side; and
 - (ii) motorised for the purposes of height adjustment; and
 - (iii) height adjustable between 450 mm and 900 mm above finished floor level; and
 - (iv) not less than 700 mm wide; and
 - (v) not less than 1800 mm long.
- b) The change table must have a maximum safe working load of not less than 180 kg, including when raising or lowering the table.
- c) The change table must not encroach on any required circulation space.
- d) A dispenser for sanitary wipes must be provided.
- e) A shelf not less than 400 mm long and 150 mm wide must be provided.

- 17.10. Changing Rails
- Changing rails must be installed as two horizontal and parallel rails fixed to a wall, not less than 800 mm long, each with a diameter between 30 and 40 mm, and—
- a) the lower rail must be installed between 800 mm and 810 mm above finished floor level; and
 - b) the upper rail must be installed between 1000 mm and 1010 mm above finished floor level; and
 - c) the rails must be able to withstand a force of not less than 1100 N in any direction.

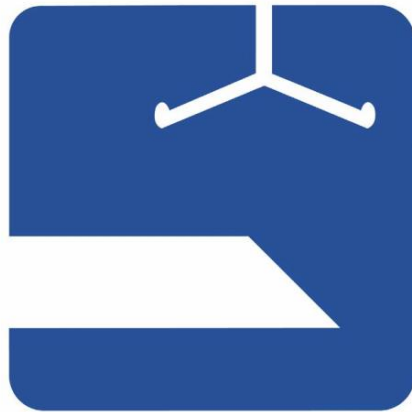
- 17.11. Door and door controls
- The entrance door and associated door controls must be automated and must comply with the following:
- a) The threshold must incorporate a smooth transition without a step or lip.
 - b) The minimum clear opening width must be—
 - (i) 100 mm in locations where beach wheelchairs are likely to be used; or
 - (ii) 950 mm in all other locations.
 - c) The doorway must achieve a luminance contrast of at least 30% between—
 - (i) Door leaf and door jamb; or
 - (ii) Door leaf and adjacent wall; or
 - (iii) Architraves (where used) and adjacent wall; or
 - (iv) Door leaf and architrave (where used); or
 - (v) Door jamb and adjacent wall.
 - d) The operation of the door must be calibrated such that—
 - (i) it has a gentle opening and closing movement; and
 - (ii) there is sufficient dwell time for a user to safely travel through the doorway.
 - e) The door must be fitted with a fail-safe opening mechanism that opens the door if an obstruction is detected during its closing movement.
 - f) Door controls must be located internally and externally—
 - (i) between 900 mm and 1200 mm above finished floor level; and
 - (ii) not less than 500 mm from any internal corner.
 - g) Door control buttons must—
 - (i) have a minimum diameter of 25 mm; and
 - (ii) be proud of the surrounding surface; and
 - (iii) activate the door operation before the button becomes level with the surrounding surface; and
 - (iv) be of a contrasting colour to the surrounding plate.
 - h) The surrounding plates of both internal and external door controls must include the words "Push to Open".
 - i) The following indicator lights must be provided:
 - (i) "Occupied" and "Vacant" on the external plate.
 - (ii) "Locked" and "Unlocked" on the internal plate.
 - j) Braille and tactile signage complying with Specification D3.6 must identify the door controls.

17. ACCESSIBLE ADULT CHANGE FACILITIES

17.12. Signage

- a) External signage must incorporate—
 - (i) the symbol shown in Figure 10; and
 - (ii) the words “Accessible Adult Change Facility”.
- b) The symbol required by (a)(i) must have a blue (B21, ultramarine) background with the hoist and table elements shown in white.
- c) Signage must be braille and tactile signage complying with Specification D3.6.

Figure 10 Symbol



17.13. Operating Instructions

Signage provided within the facility must include the following information for the hoist and change table:

- a) Operating instructions.
- b) Safe working load limits.

APPENDIX 3 – AS1428.2-1992 Detailed Assessment

An assessment against the requirements contained within the Australian Standard 1428.2-1992 “Design for access and mobility – Part 2: Enhanced and additional requirements – Buildings and Facilities” has been undertaken by Design Confidence at the request of School Infrastructure NSW.

It is noted that whilst subject technical standard provides additional requirements relating to the provision of enhanced accessibility features, AS1428.2-1992 is referenced in the BCA 2019 Amendment 1 as it refers to Part H2 – Public Transport Buildings in particular, in accordance with Table 1 of Schedule 4 – Referenced documents.

Therefore, compliance with AS1428.2-1992 is not required under the BCA relating to the subject educational development.

The comments below have been provided as guidance should the client decide to implement the additional requirements as contained under AS1428.2-1992.

Furthermore, it is advised that where there are any discrepancies between the BCA and AS1428.2-1992, the requirements contained within the BCA shall take precedence, in accordance with BCA Clause A4.1

The following comments are provided in regards AS1428.2-1992—

DESCRIPTION	COMMENT
Accessible WC – circulation spaces	<p>Clause 15.8 of AS1428.2-1992 states that fixtures shall not encroach into required circulation spaces, in lieu of a max. 100mm encroachment permitted under AS1428.1-2009 (i.e. the basin is permitted to encroach a max. 100mm into the circulation space associated with the toilet pan in accordance with AS1428.1-2009).</p> <p>As a result, a min. 1500mm exclusion zone forward of the toilet pan is required under AS1428.2-1992.</p> <p>Areas of concern include –</p> <ul style="list-style-type: none"> ▪ Room A2R0002; ▪ Room DR0005; ▪ Room DR0006.

AS1428.2-1992 Design Checklist

1.	SCOPE
	N/A
2.	APPLICATION
	N/A
3.	REFERENCED DOCUMENTS
	N/A
4.	DEFINITIONS
	N/A

5. DIMENSIONS

N/A

6. CIRCULATION SPACES

6.1. Clear floor or ground space for a stationary wheelchair.

The minimum clear floor or ground space required to accommodate a single stationary wheelchair and occupant shall be 800 mm by 1300 mm (see Figure 1).

The minimum clear floor or ground space for wheelchair may be positioned for forward or parallel approach to an object (see Figure 1). Clear floor or ground space for wheelchairs may be part of the knee space required under objects.

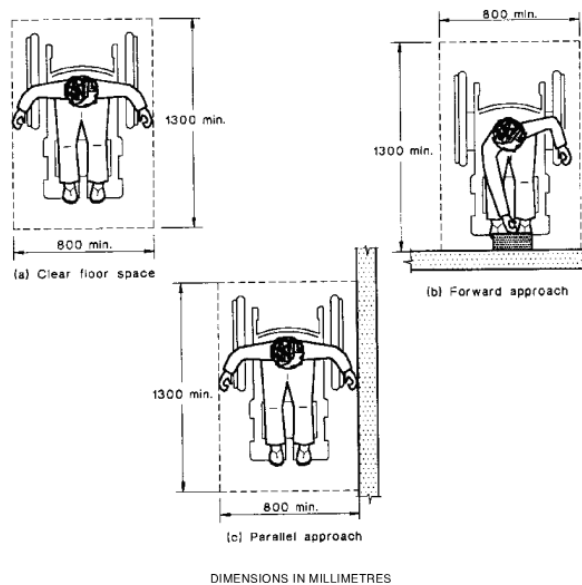


FIGURE 1 MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIRS

6.2. Circulation space for 180° wheelchair turn – per AS1428.1-2009 requirements (1540mm W x 2070mm L).

NOTE: A space of 2270 mm in the direction of travel and 1740 mm wide is preferred.

6.3. Circulation space for 360° wheelchair turn

The space required for a wheelchair to make a 360° turn shall be not less than 2250 mm by 2250 mm.

NOTE: A space of 2450mm by 2450mm is preferred.

6.4. Width of path of travel

The minimum clear width of a path of travel shall be 1200 mm except at doors.

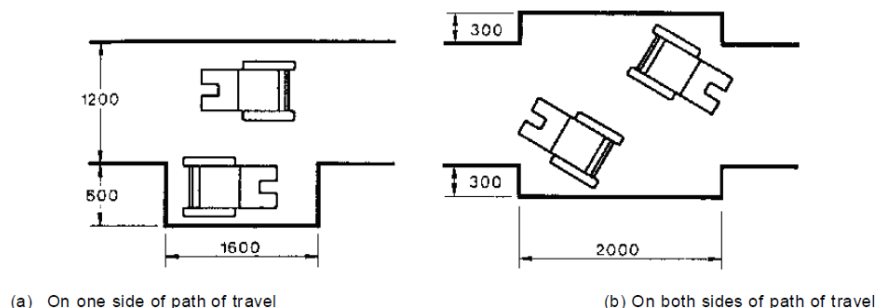
6.5. Passing space for wheelchairs

Passing space for wheelchairs shall be as follows:

- The minimum width of space required for two wheelchairs to pass each other shall be 1800mm.
- Where a path of travel is less than 1800 mm wide, **passing spaces at intervals of not more than 6m** shall be provided as follows (see Figure 3):

6. CIRCULATION SPACES

- i) On one side of the path of travel—the path of travel shall be not less than 1600 mm long and 1800 mm wide;
- ii) With the space distributed equally on both sides of the path of travel—the path of travel shall be not less than 2000 mm long and 1800 mm wide.



DIMENSIONS IN MILLIMETRES

FIGURE 3 PASSING SPACE FOR WHEELCHAIRS

6.6. Changes in level

Changes in level along a path of travel shall comply with the requirements for abutment of surfaces in AS 1428.1.

If a path of travel has an abrupt change in level (i.e. ledge or step) greater than 3 mm, then a kerb ramp, a ramp or a lift in accordance with Clause 12 shall be provided.

NOTE: The requirements of this Clause do not apply to tactile ground surface indicators which may have a raised profile of 4-5 mm.

6.7. Vertical clearance - per AS1428.1-2009 requirements.

6.8. Floor and ground surfaces

The surfaces of a circulation space shall comply with Clause 9.

7. CONTINUOUS ACCESSIBLE PATHS OF TRAVEL

7.1. Continuous accessible paths of travel shall be provided as follows:

- a) Accessible paths of travel within the boundary of the site shall be provided from transportation stops, accessible parking and accessible passenger loading zones, and public streets or walkways to the accessible building entrance they serve.
- b) Accessible paths of travel shall connect accessible buildings, facilities, and spaces that are on the same site.
- c) Accessible paths of travel shall connect accessible building entrances with all accessible spaces and facilities within a building.
- d) Accessible paths of travel shall connect accessible entrances of each accessible building with those exterior and interior spaces and facilities that serve it.
- e) The accessible elements of buildings and facilities shall be arranged so as to minimize distances to be travelled between them.

8. WALKWAYS, RAMPS AND LANDINGS

8.1. General

Walkways, ramps and landings shall comply with AS 1428.1, with the following exceptions and additional requirements:

8. WALKWAYS, RAMPS AND LANDINGS	
	<p>a) Width – Walkways, ramps and landings shall have an unobstructed width of not less than 1200mm.</p> <p>b) Provision of landings at ramps – Ramps shall be provided with landings at the top and bottom of the ramp and at intervals not exceeding —</p> <ul style="list-style-type: none"> i) for ramp gradients of 1 in 14: 6 m; ii) for ramp gradients of 1 in 19: 14 m; and iii) for ramp gradients between 1 in 19 and 1 in 14, at intervals which shall be obtained by linear interpolation. <p>c) Doorways at landings - the dimensions of the landings shall be in accordance with Clause 11.5.4 of AS1428.2.</p>
8.2.	<p><i>Outdoor conditions</i></p> <p>In outdoor conditions, walkways, ramps and landings shall be designed so that water does not accumulate on surfaces.</p>
8.3.	<p><i>Ramp handrails</i></p> <p>Ramp handrails shall comply with Clause 10</p>
8.4.	<p>Kerb ramps and step ramps</p> <ul style="list-style-type: none"> (i) <i>General</i> - per AS1428.1-2009 requirements; (ii) <i>Provision of ramps at kerbs</i> – per AS1428.1-2009 requirements; (iii) <i>Location at marked crossings</i> – Kerb ramps (the entry to ramps) at marked crossings shall be wholly contained within the markings, excluding any flared sides; (iv) <i>Islands</i> – Raised islands in crossings shall be cut through level with the street or have kerb ramps at both sides and a level area at least 1220 mm long in the part of the island intersected by the crossings.; (v) <i>Note:</i> Traffic signal control buttons should be positioned within the zone of common reach (see Clause 22.4) and where traffic signals are installed, auditory signals and tactile directional indicator buttons should be provided; (vi) <i>Surface</i> – The ramp and sloping sides shall be slip-resistant and of a colour that contrasts with the adjoining surface; (vii) <i>Tactile warnings</i> Warning strips shall be provided at the top of the ramp, in accordance with Clause 18.
9. GROUND AND FLOOR SURFACES	
9.1.	<p>Ground and floor surfaces shall comply with the requirements for floor surfaces in AS 1428.1, and with the following:</p> <ul style="list-style-type: none"> a) <i>Abutment of surfaces</i> Paving bricks with bevelled edges or chamfered arises and heavily textured and figured surfaces such as raked joint pavers shall not be used. b) <i>Carpet</i> Where carpet is used on a ground or floor surface, the following requirements apply: <ul style="list-style-type: none"> i) The carpet shall be securely attached. ii) Any pad, backing or cushioning shall provide a firm surface. iii) The carpet shall have a level loop, a textured loop, a level cut pile or a level cut or uncut pile texture. iv) The pile height shall be not more than 6 mm. v) Exposed edges of carpet shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge. vi) Carpet edge trim shall create no ridge on the floor surface higher than 3 mm.

9. GROUND AND FLOOR SURFACES

c) Gratings

If gratings are located in a walking surface, they shall have spaces not more than 13 mm wide and not more than 150 mm long. If gratings have elongated openings, they shall be placed so that the long dimension is transverse to the dominant direction of travel.

10. HANDRAILS

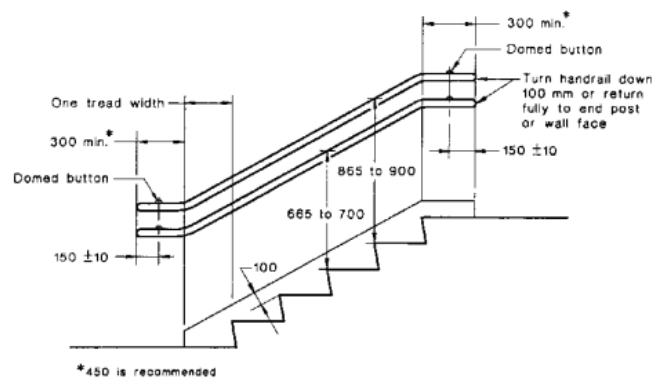
10.1. General

The following general requirements apply for handrails:

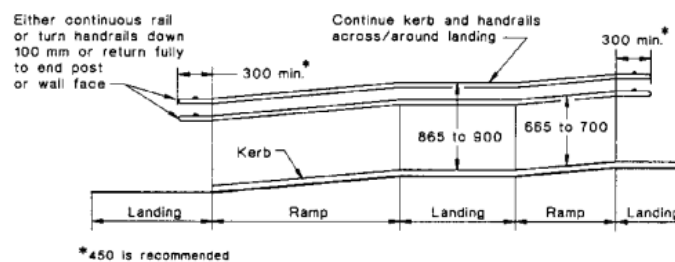
- The design and construction of handrails shall comply with AS 1428.1.

NOTE: in accordance with Figure 5, the height to the top of the handrails is required to be 865-900mm (in lieu of 865-1000mm as required under Part 1).

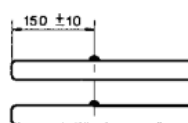
- The end of the handrail shall be extended parallel to the surface below for a minimum of 300 mm (450mm is preferred). The end shall be a continuous rail, turned down 100 mm or be returned fully to the end post or wall face.
- Where a handrail is not continued, a tactile indicator in the form of a domed button shall be provided in accordance with Figure 5.
- Gripping surfaces of handrails shall be continuous.
- Handrails shall not rotate within their fittings.



NOTE: Height of rails measured from nosing of tread to top of rails
(a) Stairway handrails



Height of rails measured from trafficable surface to top of rails.
(b) Ramp handrails



(c) Domed buttons indicating discontinuity of handrail
DIMENSIONS IN MILLIMETRES

FIGURE 5 HANDRAILS

10.2. Stairway handrails

10. HANDRAILS

The installation of stairway handrails shall be in accordance with AS 1428.1 and with the following:

- a) Wherever practicable the outside handrail shall be continuous throughout the stair flights and around landings;
- b) The inside handrail shall always be continuous, and at landings shall maintain a height which is parallel to the finished floor;
- c) Where there is a background wall, handrails shall have a luminance contrast factor with the wall of not less than 0.3 (30 percent).

10.3. Grabrails

The design and construction of grabrails shall comply with AS 1428.1, and with the following –

- a) The clearance between the grabrail and the adjacent wall surface shall be as specified in the appropriate Clauses of this Standard;
- b) Grabrails shall not rotate within their fittings.

Note: grabrails in in wet areas or outdoors should be slip-resistant when wet.

11. DOORWAYS AND DOORS

11.1. Provision of entrances

The provision of entrances shall comply with AS 1428.1

Note: consideration should be given to protecting entry doors for wind forces where they are located in an external wall (e.g. by a lobby, screen wall, sliding door)

11.2. Thresholds

Threshold ramps to be in accordance with AS1428.1-2009.

Note: it is in the interest of people with disabilities for thresholds at doorways to be eliminated. Consider the provision of water seals, grates and canopies for whether protection.

11.3. Lighting

Refer to Clause 19.

11.4. Call buttons

Call buttons at entrances shall be located at 900-1100mm height and not less than 500 mm from an internal corner.

NOTE: Call buttons should have an integral, continuously operating light.

11.5. Doorways

Clear opening and circulation spaces at doorways shall be in accordance with AS1428.1-2009.

11.6. Doors

Door glazing – refer to AS1428.1-2009.

Glazing in joinery doors or flush doors - Glazing in joinery doors or flush doors shall be as follows –

- a) The lower edge of the glazing shall be 300-1000mm above the bottom edge of the door.
- b) The upper edge of the glazing shall be not less than 1600 mm above the bottom edge of the door.
- c) In width, the glazing shall extend not more than 200 mm from the latch edge of the door and shall be not less than 150 mm wide.

11. DOORWAYS AND DOORS

NOTE: Glazing in doors is useful to people with disabilities as it provides a view of a user approaching the door from the other side. The lower perimeters of glazing are set to avoid the footrest of a wheelchair contacting the glass.

- 11.7. Door controls
Refer to Clause 23.

12. LIFTS

- 12.1. Not applicable – no lifts proposed in the subject development.

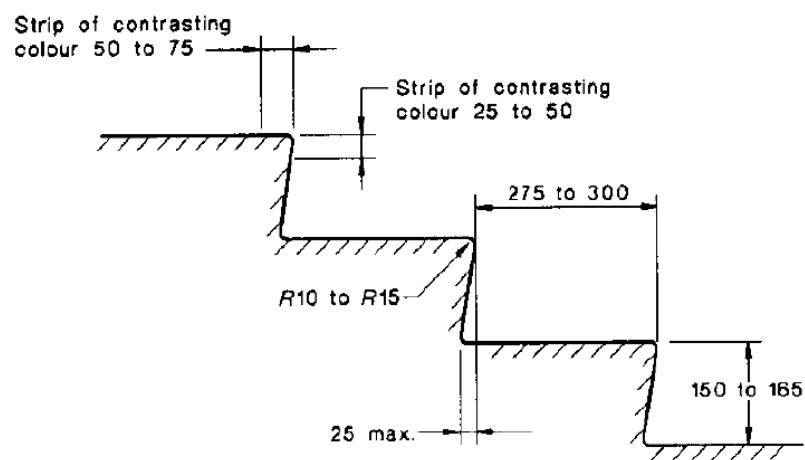
13. STAIRWAYS

- 13.1. General
Stairways shall not be the sole means of access. Ramps which comply with Clause 8, or lifts which comply with Clause 12, or both, shall be provided as an alternative to stairs.
Spiral stairways and stairways with open risers shall not be provided.

- 13.2. Configuration of steps
Refer to Figure 8 below.

- 13.3. Warning strip at nosing of steps

Refer to Figure 8 below.



DIMENSIONS IN MILLIMETRES

FIGURE 8 CROSS-SECTION OF STAIRS

Note 1: refer to BCA D2.13 for requirements relating to the going and riser dimensions.

Note 2: the strip of contrasting colour being down the riser as shown above causes a concern relating to the requirements of AS1428.1-2009 Clause 11.1 (g).

- 13.4. Handrails
Refer to Clause 10.1 above.

14. CAR PARKING FACILITIES

- 14.1. Car parking facilities shall be in accordance with AS/NZS2890.6:2009.
- 14.2. In addition to the above, a minimum 2500mm vertical clearance shall be provided from the entrance of the car parking area.

15. SANITARY FACILITIES

15.1. Sanitary facilities shall comply with AS 1428.1 with the following exceptions and additional requirements –

- a) The minimum circulation spaces shall be in accordance with AS1428.1-2009;
- b) Door circulation spaces shall be in accordance with AS1428.1-2009;
- c) At least one emergency call button which complies with AS 2999 shall be installed in accordance with Clause 23 in each sanitary facility or combined facility;

Note: Separate call buttons should be placed near the WC pan, shower recess and bath.

- d) Toilet seats of moulded plastics shall comply with AS 1371. The design of the seat shall provide lateral stability;
- e) Water closets built especially for the use of ambulant people with disabilities shall be in accordance with Clause 15.3 below.

Note 1: Access to the facility should not necessitate traversing an area reserved for one sex only. (as required by the BCA F2.4).

Note 2: The luminance factor of horizontal work surfaces in sanitary facilities should be not less than 0.3 (30%) different from adjoining vertical surfaces.

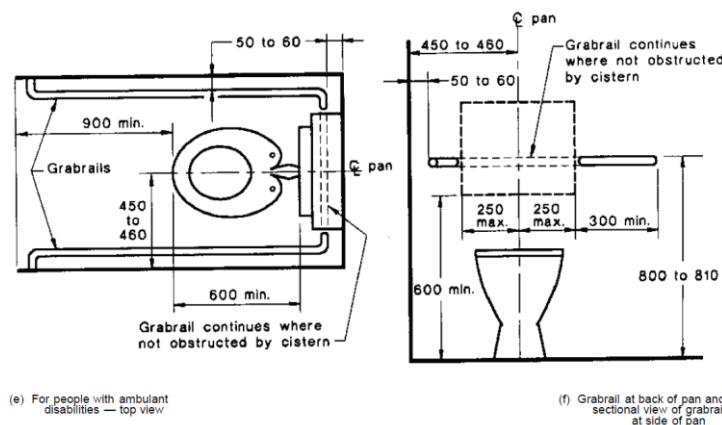
Note 3: Sensor-operated air hand dryers should be provided.

15.2. Grabrails

Where a concealed or high level cistern is used, a continuous grabrail as specified in Clause 10.2 shall be provided across the rear wall and side wall nearest the WC pan (see Figures 12(d) and (f)).

Where a low-level cistern is used the grabrail may be terminated at each side of the cistern as shown in Figure 12(f).

The distance from the front of the WC pan to the grabrail on the rear wall shall be 600-605mm.



DIMENSIONS IN MILLIMETRES

FIGURE 12 (in part) WATER CLOSETS

15.3. Water closets built especially for use by ambulant people with disabilities

General – Water closets for use by ambulant people with disabilities shall be as shown in Figure 12.

Grabrails – Grabrails shall be installed in accordance with Clause 10.2 and Figure 12(e).

Doors – Doors to water closets shall comply with the following –

16. SYMBOLS

Refer to the table below for required size in accordance with the viewing distance.

TABLE 1
SIZE OF INTERNATIONAL SYMBOLS FOR
ACCESS AND DEAFNESS FOR VARYING
VIEWING DISTANCES

Required viewing distance m	Minimum size of symbol mm
≤7	≥ (60 x 60)
>7 ≤18	≥ (110 x 110)
>18	≥ (200 x 200)
	≥ (450 x 450)

17. SIGNAGE

17.1. Signage shall comply with the requirements of BCA Specification D3.6 and AS1428.1-2009. Additional requirements as per AS1428.2 are listed below.

17.2. Height of letters in signs

The height of letters in signs shall be not less than that given in Table 2.

TABLE 2
HEIGHT OF LETTERS FOR VARYING
VIEWING DISTANCES

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

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

NOTE: Helvetica Medium typeface is preferred.

17.3. Illumination of signs

Illumination of signs shall be provided in accordance with Clause 19 for general displays. Lighting shall be placed so that unwanted reflections shall not occur on the sign.

The luminance factor of the surface of numbers, letters or symbols shall be not less than 0.3 (30%) different from their background.

17.4. Location of signs

Signs including symbols, numbering and lettering shall be located as follows:

- Where they are clearly visible to people in both a seated and standing position (see Clause 25 of AS1428.2), of the finished floor.
- At changes of direction.
- 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 sufficient contrast to the sign. If this surface provides insufficient contrast (e.g. patterned wallpapers), the background to the sign shall be increased in size.

18. WARNINGS	
18.1.	<p>Tactile ground surface indicators (TGSIs) shall be provided at –</p> <ul style="list-style-type: none"> a) Stairways, escalators and ramps; b) Kerb ramps and step ramps; c) Pedestrian crossings at roadways; d) Pedestrian crossings in high-use vehicular areas, e.g. car parks; e) Vehicle pick-up and drop-off areas; f) Railway platforms; g) Passenger wharves; h) Where there is a hazard within a circulation space or adjacent to a path of travel; i) Where indication of a change of direction is required. <p>It is noted that AS1428.2-1992 requires the provision of tactile indicators at kerb ramps and step ramps, whilst these locations are not required with tactile indicators in accordance with D3.8 of the BCA.</p>
18.2.	<p>Emergency warning systems</p> <p>General</p> <ul style="list-style-type: none"> a) Emergency warning systems shall include both audible alarms complying with Clause 18.2.2 and visual alarms complying with Clause 18.2.3 of AS1428.2.
18.3.	<p>Audible alarms</p> <ul style="list-style-type: none"> a) Audible emergency alarms shall produce audible signals in accordance with the requirements for output of loud speakers in AS2200.2, except that levels shall exceed by 15dB (A) the noisiest back ground sound pressure level averaged over a period of 60 s, and the level shall not be less than 75 dB(A). b) Visual alarms <p>Visual alarms in accordance with AS 2220.1 shall be arranged to flash in conjunction with the audible emergency alarms. The flashing frequency of visual alarms shall be approximately 1Hz.</p> c) Auxiliary alarms <p>Auxiliary alarms provided for people with hearing impairments shall be connected to the building emergency system or there shall be a standard electrical socket into which an alarm unit can be connected to be activated by the building alarm system. Instructions for use of the auxiliary alarm or connections shall be provided.</p> d) Deaf people may not need accessibility features other than the emergency alarm connections and communications devices. Thus, in addition to those accessible for wheelchair users, rooms should also be equipped with emergency visual alarms or connections. e) Installed personal alarm systems Alarm systems for personal use shall comply with AS 2999.
18.4.	<p>Signs warning of danger</p> <ul style="list-style-type: none"> a) Danger and caution signs shall be placed sufficiently ahead of a particular hazard to allow sufficient time to take notice of the warning.
18.5.	<p>Barricades, hoardings and safety rails</p> <ul style="list-style-type: none"> a) Barricades, hoardings and safety rails in pedestrian areas shall be rigid, distinctively coloured and, if no toe rail or similarly effective device is provided, they shall be placed to provide not less than 1 m clearance from the obstruction.
18.6.	<p>Warnings on doors to hazardous areas</p> <ul style="list-style-type: none"> a) Doors that lead to areas that might prove dangerous to a person with a visual impairment (e.g. doors to loading platforms, boiler rooms, stages, and the like) shall be made identifiable to the touch by a textured surface on the door handle, knob, pull, or other door-operating hardware. This textured surface may be made by knurling or

18. WARNINGS

roughening, or by a material applied to the contact surface. Such textured surfaces shall not be provided for emergency exit doors or any doors other than those to hazardous areas.

19. LIGHTING

19.1. Illumination levels

- a) Illumination levels shall be uniform and comply with the requirements for maintenance illumination set out in AS 1680.2.

NOTES:

- 1 The following minimum levels of maintenance illumination are recommended:

Entrances	
Passageways and walkway	≥150 lx
Stairs	150 lx
Ramps	150 lx
Lifts	See AS 1735.12
Toilet and locker rooms	200 lx
Counter tops	250 lx
General displays	200-300 lx
Telephones	200 lx

19.2. Light switches

- a) Switches shall be in accordance with Clause 22.4 of AS1428.2. In bedrooms, at least one room light of not less than 150 lx shall have a bedside switch.

20. SOUND LEVELS

- 20.1. NOTE: It is essential to effective hearing that the recommended design sound levels for various functional areas of buildings given in AS 2107 be adhered to.
Care should be taken to comply with these recommendations in the installation of air-conditioners, computer machinery and the like

21. HEARING AUGMENTATION – LISTENING SYSTEMS

21.1. General

- a) Where a sound amplification system is provided, a listening system to aid hearing-impaired people shall be installed or made available and shall cover at least 10 percent of the total area of the enclosed space. A sign indicating that an assistive hearing device is installed or is available shall be provided in accordance with Clauses 16 and 17 of AS1428.2 at the main door or doors to the enclosed space. Where the listening system does not cover the total area of the enclosed space, the boundaries of the area served shall be designated by such signs.

21.2. Acceptable types of listening systems

Acceptable types of listening systems are as follows:

- a) Audio-frequency induction loop system

The audio-frequency induction loop system can be directly received by people using hearing aids fitted with a magnetic induction coil, which is a standard hearing aid option. The recommended magnetic field strength, as specified in AS 1088.4, is -20 ± 3 dB relative to 1 ampere per metre for an input signal of level equal to the long-time average level of input speech. This field was chosen so that it is high enough to produce an acceptable signal-to-noise ratio over environmental electromagnetic noise for power installation and the like, yet not so high as to cause overloading of hearing aids.

The audio-frequency induction loop system cannot be used successfully in multiple installations close together, e.g. in adjacent rooms, owing to mutual interference resulting from spillover of the magnetic field outside the looped area, both vertically and horizontally.

21. HEARING AUGMENTATION – LISTENING SYSTEMS

b) Infrared light transmission system

In this system, a modulated light beam is transmitted to special receivers worn by the listeners. The line of sight from transmitter to receivers must be unobstructed. The system may become inoperative when the receivers are exposed to direct sunlight.

It may be used as an alternative to the audio-frequency induction loop system when multiple room installations are required to operate simultaneously.

c) Induction field radio system

The induction field radio system is a frequency-modulated system normally operated on a carrier frequency of 3175 kHz allocated by the International Telecommunications Union (ITU). This allocation is shared by other radio services, which may occasionally interfere. The basic feature of the induction field radio hearing aid system is its localized wireless transmission in which the induction field is strong near the transmitter but rapidly becomes weaker with increasing distance; a low power battery-operated version is limited to a range of about 12 metres. When several systems are in use in a confined area, the receiver responds only to the strongest signal.

This system is particularly useful when the speaker, wearing a portable transmitter and associated microphone, must move about in company with the listeners, for example on guided tours in museums and art galleries.

d) The VHF frequency-modulated radio system

Unlike the induction field radio system this system operates in the very high frequency (VHF) band, where a number of channels for use by hearing impaired people have been allocated by the ITU. It can therefore make use of different channels to avoid mutual interference when a number of transmitters have to be used in one building.

Because of the short wavelength used, the received field strength reduces slowly as the distance from the transmitter increases. Potentially it has greater range than the induction field radio system. The system needs an external antenna which is short enough to be carried on the person. On the other hand, induction field radio systems use loop antennae mounted internally in the receiver.

21.3. Considerations when choosing an assistive listening system

When choosing a listening system the following considerations apply:

- a) The system needs to be usable by people who do not have hearing aids and by people who–
 - i) have hearing aids with a 'T' switch;
 - ii) have hearing aids with audio input; and
 - iii) have hearing aids without a 'T' switch or audio input.
- b) The frequency response and the adjustable volume gain of the receivers needs to be suitable for people with varying severity of hearing impairment.
- c) It is essential that the equipment is safe and easy to manipulate and that the hygiene of reusable earpieces on receivers can be ensured.
- d) The system chosen needs to be suitable for the intended use and not be subject to interference from, or cause interference to, any other equipment. For example, audio-loops may be subject to interference from nearby electrical installations; radio-frequency transmissions may interfere with other transmissions on similar bands; strong lighting may interfere with infrared transmission.
- e) It is essential that the system does not interfere with the listening enjoyment of others, e.g. sound leakage from headphones may upset people seated nearby.
- f) Where privacy is required, as in courtroom proceedings, infrared transmission will not pass through walls.

22. REACH RANGES

22.1. Forward reach – wheelchair users

22. REACH RANGES

If the clear floor space allows only forward approach to an object by a person in a wheelchair, objects shall be in the reach range shown in Figure 20(a). If the high forward reach is over an obstruction, objects shall be within the reach range shown in Figure 20(b).

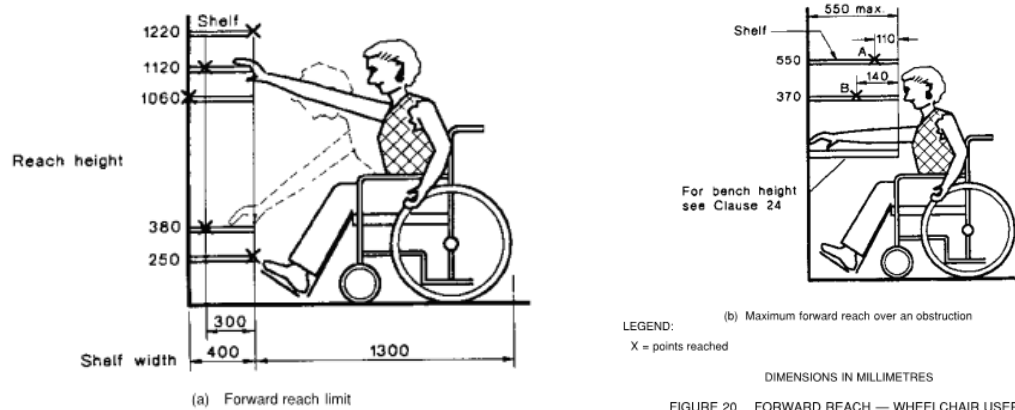


FIGURE 20 FORWARD REACH — WHEELCHAIR USERS

22.2. Side reach — wheelchair users

If the clear floor space allows parallel approach to an object by a person in a wheelchair, objects shall be in the reach range shown in Figure 21(a). If the side reach is over an obstruction, objects shall be within the reach range shown in Figure 21(b).

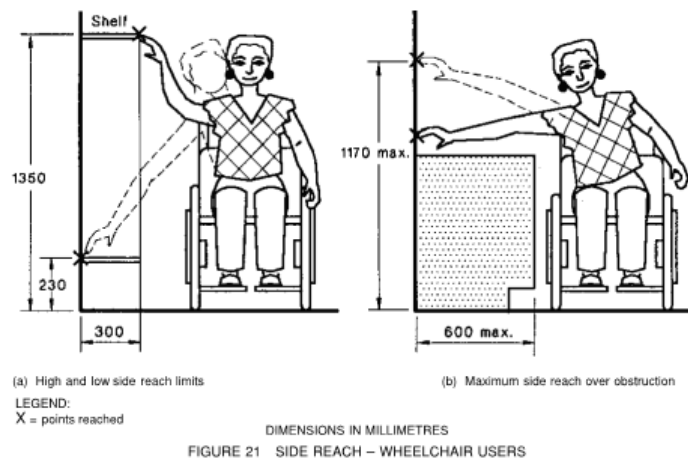
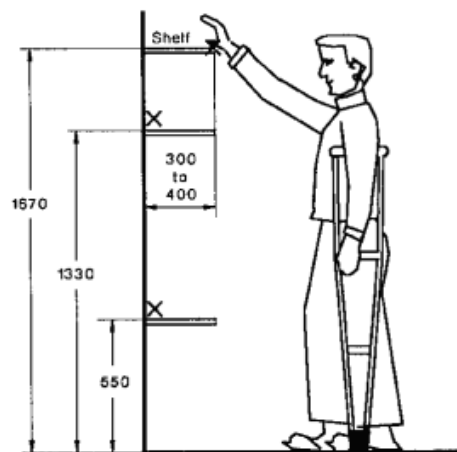


FIGURE 21 SIDE REACH — WHEELCHAIR USERS

22.3. Reach of ambulant people with disabilities

The points at which comfortable reach is achieved by most ambulant people with disabilities are shown in Figure 22.

22. REACH RANGES



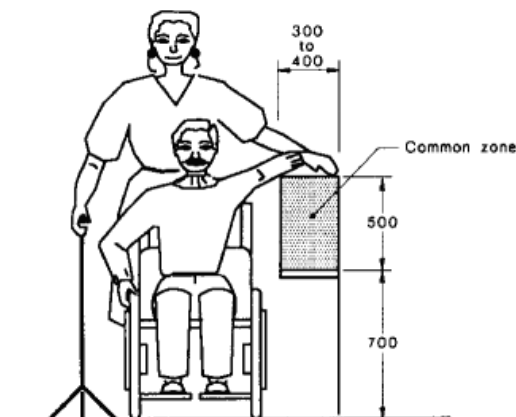
LEGEND:
X = points reached

DIMENSIONS IN MILLIMETRES

FIGURE 22 REACH OF AMBULANT PEOPLE WITH DISABILITIES

22.4. Zone of common reach

The zone for reach to objects which will be suitable for both ambulant people with disabilities and wheelchair users is shown in Figure 23.



DIMENSIONS IN MILLIMETRES

FIGURE 23 ZONE OF COMMON REACH FOR AMBULANT PEOPLE WITH DISABILITIES AND WHEELCHAIR USERS

23. CONTROLS

- | | |
|-------|--|
| 23.1. | Controls, including door handles and hardware, switches and general purpose outlets, shall comply with AS 1428.1 and with the additional requirements of this Clause (23) |
| 23.2. | Operation – per AS1428.1-2009. |
| 23.3. | Door handles – per AS1428.1-2009.

In addition - Handles shall be clearly identified by colour with luminance contrast to their background of not less than 0.3 (30%). |
| 23.4. | Window handles

Shape and identification of window handles which are intended to be operated by occupants in trafficable areas shall comply with the requirements for door handles in Clause 23.3 of AS1428.2. |
| 23.5. | Water taps – per AS1428.1-2009. |

23. CONTROLS

NOTE: Although sensor taps can cost significantly more than other types of tap, their use is recommended where possible.

24. FURNITURE AND FITMENTS

24.1. Tables, counters and worktops

Height of unit where a single table, counter or worktop only can be provided

Where a single unit only is provided, the height to the top of the unit and the height beneath the unit shall be as follows:

- a) Height from the finished floor to the top of the unit: 850 ± 20 mm.
- b) Height of clearance beneath the unit from the finished floor: 820 ± 20 mm.

24.2. Height of unit where two tables, counters or worktops can be provided

Where two units are provided, the height to the top of each unit and clearance beneath each unit shall be as follows:

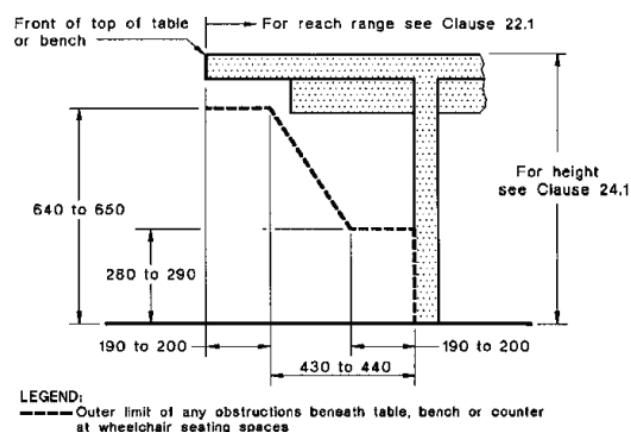
- a) Height from the finished floor to the top of the unit:
 - i) 1st unit: 750 ± 20 mm.
 - ii) 2nd unit: 850 ± 20 mm.
- b) Height of clearance beneath unit, from the finished floor:
 - i) 1st unit: 730 ± 20 mm.
 - ii) 2nd unit: 820 ± 20 mm.

24.3. Width of seating spaces

In order to provide a wheelchair seating space, the minimum clearance width between the legs or other fixtures beneath a table, counter or worktop on at least one accessible face of the unit shall be 800 mm.

24.4. Knee and foot clearance

A minimum clearance beneath the table, counter or worktop at wheelchair seating spaces shall be maintained as shown in Figure 25.



NOTE: For width of seating spaces see Clause 24.1.3.

DIMENSIONS IN MILLIMETRES

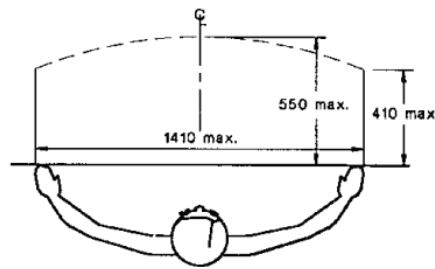
FIGURE 25 KNEE AND FOOT CLEARANCE BENEATH A TABLE, BENCH OR COUNTER

24.5. Length of top of counter

Where a counter is provided for general use, a length of the counter of not less than 900 mm shall be provided which is in accordance with this Clause (24). A clear floor space in front of this part of the counter shall be provided in accordance with Clause 6.3 of AS14728.2.

24. FURNITURE AND FITMENTS

- 24.6. Length and depth requirements for worktops Dimensions for worktops shall be calculated on the maximum horizontal reach shown in Figure 26.

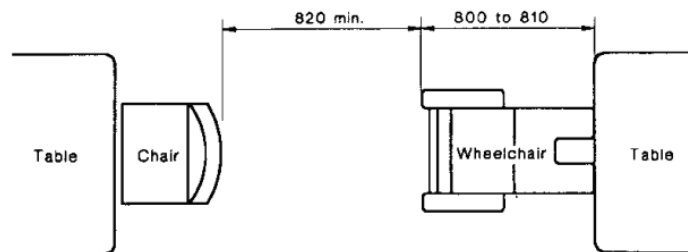


DIMENSIONS IN MILLIMETRES

FIGURE 26 MAXIMUM HORIZONTAL REACH TO OBJECTS ON TABLE OR BENCHTOP

- 24.7. Distance between tables

The distance between tables shall be as shown in Figure 27.



DIMENSIONS IN MILLIMETRES

FIGURE 27 DISTANCE BETWEEN TABLES AND CHAIRS

- 24.8. Storage

Accessible storage facilities such as cabinets, shelves, cupboards and drawers shall comply with the following:

- a) Clear floor space

A clear floor space of not less than 800 mm x 1300 mm that allows either a forward or parallel approach by a person using a wheelchair shall be provided at accessible storage facilities.

- b) Height

Accessible storage spaces shall be within one of the reach ranges specified in Clause 22. Clothes-hanging rods or hooks shall be a maximum of 1350 mm from the floor (see Figure 28).

- c) Hardware

Hardware for accessible storage facilities shall comply with Clause 23. Touch latches and D-shaped pulls are acceptable.

24. FURNITURE AND FITMENTS

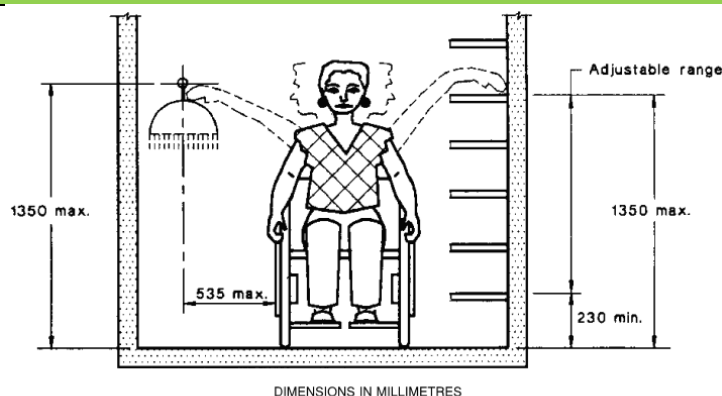
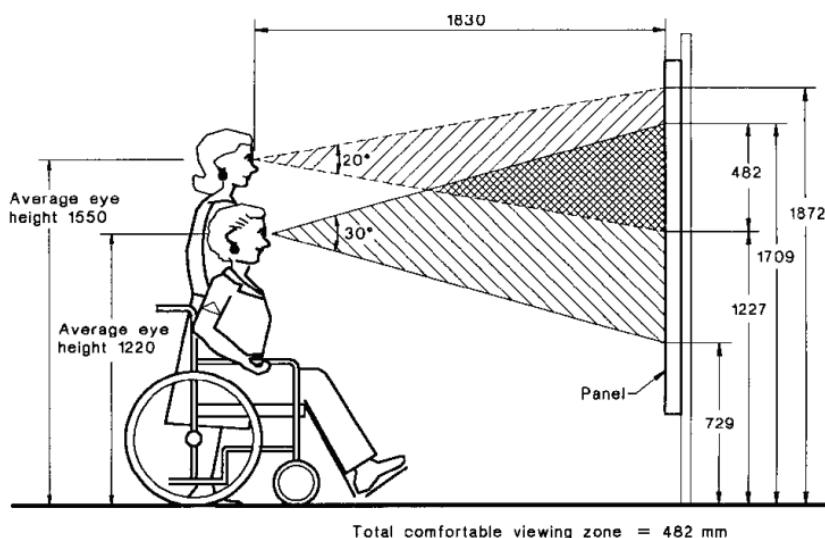


FIGURE 28 STORAGE SHELVES AND WARDROBES

24.9. Beds – not applicable to the subject development.

25. VIEWING RANGES

25.1. Seating in auditorium / assembly areas shall be in accordance with AS1428.1. Refer to Clause 21 for hearing augmentation.



Source: National Endowment for the Arts, Needs Assessment Survey Instrument, produced by National Access Centre, USA

26. AUDITORIUM AND ASSEMBLY AREAS

26.1. Seating in auditorium / assembly areas shall be in accordance with AS1428.1. Refer to Clause 21 for hearing augmentation requirements

- 26.2. Podiums and stage areas shall comply with the following:
- Ramped access in accordance with this Standard shall be provided to form a continuous accessible path of travel to the podium or stage.;
 - The stage area shall allow space for wheelchair turning in accordance with Clause 6.3.
 - All controls to be operated by a speaker shall be operable by a seated person, in accordance with the reach ranges in Clause 22.
 - All facilities on the podium shall be usable by a seated person.
 - Lighting of the podium or stage shall be at least the recommended service illuminance for assembly and concert hall platforms in AS 1680.1.

NOTE: The boundaries of a podium or stage area should be defined by barriers or contrast in floor surface colour and texture

27. STREET FURNITURE

27.1. General

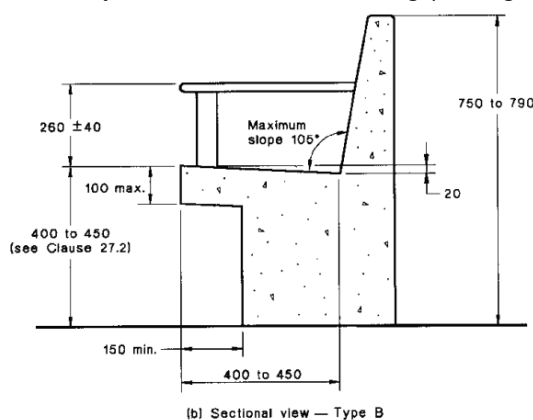
Street furniture, which includes objects such as seats, tables, drinking fountains, planter boxes, rubbish bins and the like, shall comply with the following:

- a) Objects shall not protrude into an accessible path of travel. Seats shall be a minimum of 500mm away from the path of travel.
- b) Objects shall be of a colour which provides a contrast with their background and have a luminance factor of not less than 0.3 (30 percent).

27.2. Seating in pedestrian areas

The design and installation of seating shall be as follows:

- a) The front of the seat shall have a clear space between any legs at ground level to within 150 mm of the front edge of the seat, and to within 100 mm of the seat height to allow for rearward adjustment of feet when rising (see Figure 32(b)).



DIMENSIONS IN MILLIMETRES

FIGURE 32. TYPICAL PARK BENCH SEATING

- b) Where armrests are provided, the top surface of the armrests shall be at a height of 260 ± 40 mm above the seat.
- c) The front edge of the seat shall have a minimum radius of 30 mm.
- d) No edge or projection shall have a radius of less than 5 mm unless protected from contact with the user.
- e) The seat shall drain free of water.

27.3. Drinking fountains and water coolers

General

At each location where drinking fountains or water coolers are provided, at least one of these shall be in accordance with Figure 33.

Water outlet

The water outlet shall be as close as possible to the front of the unit. It shall direct the water flow to a height of 80 mm to 100 mm in a trajectory that is parallel or nearly parallel to the front of the unit (see Figure 33).

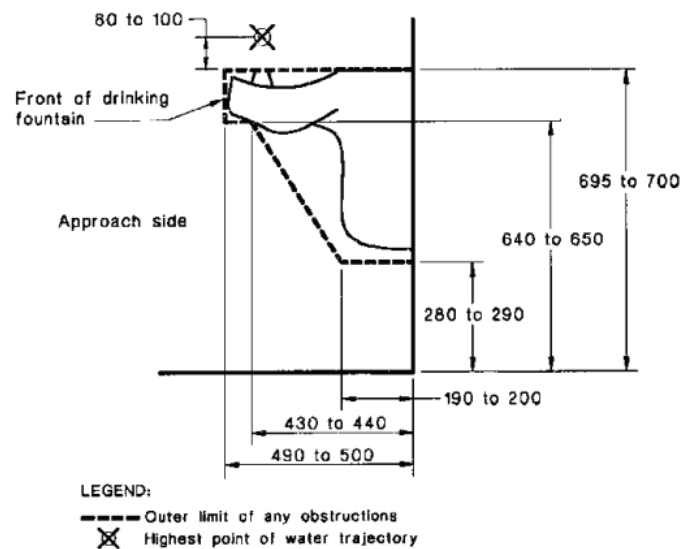
Controls

Controls shall either be centrally positioned at the front of the unit or if positioned at the side, be on both sides and not more than 180 mm from the front of the unit. Controls operable by one hand shall require an operating force of not more than 19.5 N.

Recessed drinking fountains

Where a drinking fountain is recessed, in addition to complying with the clearance requirements in Figure 33, a clear width of space underneath the unit not less than 800 mm shall be provided.

27. STREET FURNITURE



DIMENSIONS IN MILLIMETRES

FIGURE 33 DRINKING FOUNTAINS AND WATER COOLERS

Cup dispensers

The height of the operative components of cup dispensers shall be not more than 1100 mm above the trafficable surface.

28. GATEWAYS AND CHECKOUTS

28.1. Not applicable to the subject development.

29. VENDING MACHINES

29.1. Height

The height of the operative components shall be between 500 mm and 1200 mm above the trafficable surface.

Controls

Controls shall comply with the following:

- The required operating force for any control shall not exceed 19.5 N.
- Controls shall be clearly identifiable by touch and sight.
- Controls shall have a tactile surface to facilitate use by vision-impaired persons.

Illumination

Illumination shall be provided in accordance with Clause 19.1 of AS1428.2.

Circulation space

Sufficient circulation space to allow a 360 degrees wheelchair turn in accordance with Clause 6.3 of AS1428.2 shall be provided in front of the vending machine, as follows:

- Any crossfall shall be no greater than 1 in 40.
- The ground or floor surface of the circulation space shall have a slip-resistant finish.

30. TELEPHONES

30.1. Payphones – not applicable to the subject development.

30.2. Telephones other than payphones

30. TELEPHONES

Where telephones other than payphones are provided, at least one accessible telephone shall be at an accessible floor level and shall be fitted with an incoming call alarm suitable for hearing-impaired people, e.g. a visual alert signal or a specially designed tone-calling device, as well as a volume control and built-in hearing aid coupler.

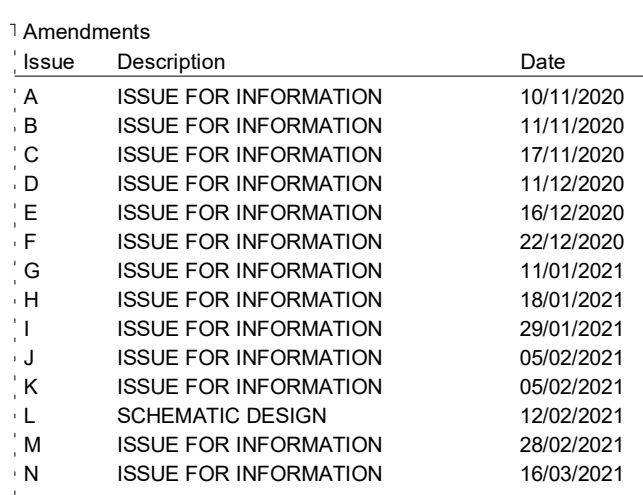
31. POSTBOXES

31.1. Not applicable to the subject development.

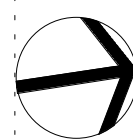
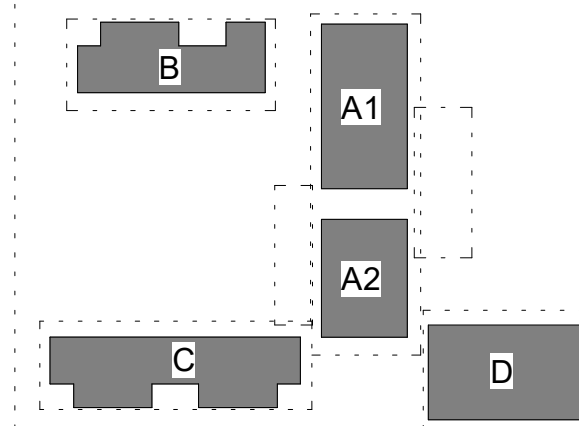
32. TIME DELAYS FOR LIGHTS AT PEDESTRIAN CROSSINGS

32.1. Not applicable to the subject development.

APPENDIX 4 - Drawing Mark-ups



Amendments		
Issue	Description	Date
A	ISSUE FOR INFORMATION	10/11/2020
B	ISSUE FOR INFORMATION	11/11/2020
C	ISSUE FOR INFORMATION	17/11/2020
D	ISSUE FOR INFORMATION	11/12/2020
E	ISSUE FOR INFORMATION	16/12/2020
F	ISSUE FOR INFORMATION	22/12/2020
G	ISSUE FOR INFORMATION	11/01/2021
H	ISSUE FOR INFORMATION	18/01/2021
I	ISSUE FOR INFORMATION	29/01/2021
J	ISSUE FOR INFORMATION	05/02/2021
K	ISSUE FOR INFORMATION	05/02/2021
L	SCHEMATIC DESIGN	12/02/2021
M	ISSUE FOR INFORMATION	28/02/2021
N	ISSUE FOR INFORMATION	16/03/2021



- North Point

FOR INFORMATION

- Project Manager

SJA
Level 1, 109 Pitt Street, NSW, 2000
02 9236 5000

Structural and Civil

H+H
Suite 2.01, 828 Pacific Highway, Gordon, NSW, 2072
02 9417 8400

Services

INTELLE

Level 2, 350 Kent Street, Sydney, NSW, 2000
02 9772 3600

BCA Consultant

STEVE WATSON + PARTNERS
Level 17, 456 Kent Street, Sydney, NSW, 2000
02 9283 6555

Client

SCHOOL INFRASTRUCTURE NSW
Level 8, 259 George Street, Sydney, NSW, 2000
1300 482 651

GROUP GSA

Group GSA Pty Ltd ABN 76 002 113 779
Level 7, 80 William St East Sydney NSW
Australia 2011
www.groupgsa.com

T +612 9361 4144 F +612 9332 3458

architecture interior design urban design landscape
nom architect M. Sheldon 3990
Project Title

BUDAWANG RELOCATION

Drawing Title

SITE PLAN

Scale	As indicated
-------	--------------

Drawing Created (date) 11/05/20

Drawing Created (by) CH

Plutonium-239	25
---------------	----

Plotted and checked by	PA
11-15-1	55

Vermerk	RI

Approved _____ RK

Project No	Drawing No	Issue

190941 A2000 N

This drawing is the copyright of Group GSA Fly Ltd and may not be altered, reproduced or transmitted in any form or by

of Group GSA Pty Ltd. All levels and dimensions are to be

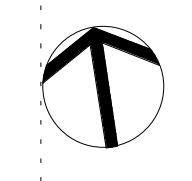
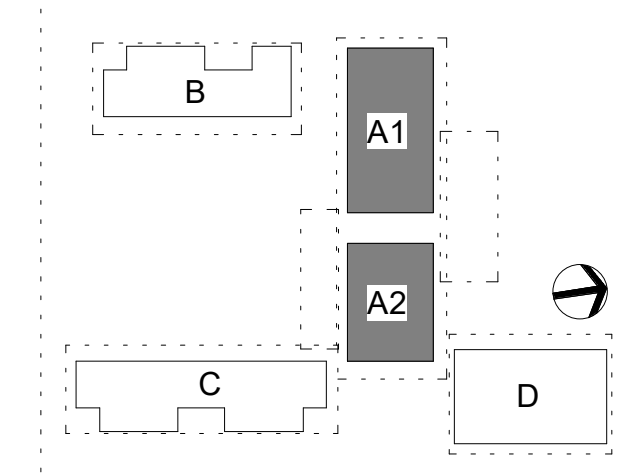
any work, making of shop drawings or fabrication of

Do not scale drawings. Use figured Dimensions.



1 BLOCK A1 FLOOR PLAN SCHEMATIC
1:100

Amendments		
Issue	Description	Date
A	ISSUE FOR INFORMATION	10/11/2020
B	ISSUE FOR INFORMATION	11/11/2020
C	ISSUE FOR INFORMATION	17/11/2020
D	ISSUE FOR INFORMATION	12/01/2021
E	ISSUE FOR INFORMATION	15/01/2021
F	ISSUE FOR INFORMATION	18/01/2021
G	ISSUE FOR INFORMATION	22/01/2021
H	ISSUE FOR INFORMATION	29/01/2021
I	ISSUE FOR INFORMATION	05/02/2021
J	ISSUE FOR INFORMATION	05/02/2021
K	SCHEMATIC DESIGN	12/02/2021
L	ISSUE FOR INFORMATION	28/02/2021
M	ISSUE FOR INFORMATION	03/03/2021
N	ISSUE FOR INFORMATION	10/03/2021
O	ISSUE FOR INFORMATION	16/03/2021



FOR INFORMATION

Project Manager
SJA
Level 1, 109 Pitt Street, NSW, 2000
02 9336 5000

Structural and Civil
H+H
Suite 2.01, 828 Pacific Highway, Gordon, NSW, 2072
02 9417 8400

Services
INTELLE
Level 2, 350 Kent Street, Sydney, NSW, 2000
02 9772 3600

BCA Consultant
STEVE WATSON + PARTNERS
Level 17, 456 Kent Street, Sydney, NSW, 2000
02 9283 6555

Client
SCHOOL INFRASTRUCTURE NSW
Level 8, 259 George Street, Sydney, NSW, 2000
1300 482 651



Group GSA Pty Ltd ABN 76 002 113 779
Level 7, 80 William St East Sydney NSW
Australia 2011
www.groupgsa.com

T +612 9361 4144 F +612 9332 3458

architecture interior design urban design landscape
nom architect M. Sheldon 3990
Project Title

BUDAWANG
RELOCATION

Drawing Title

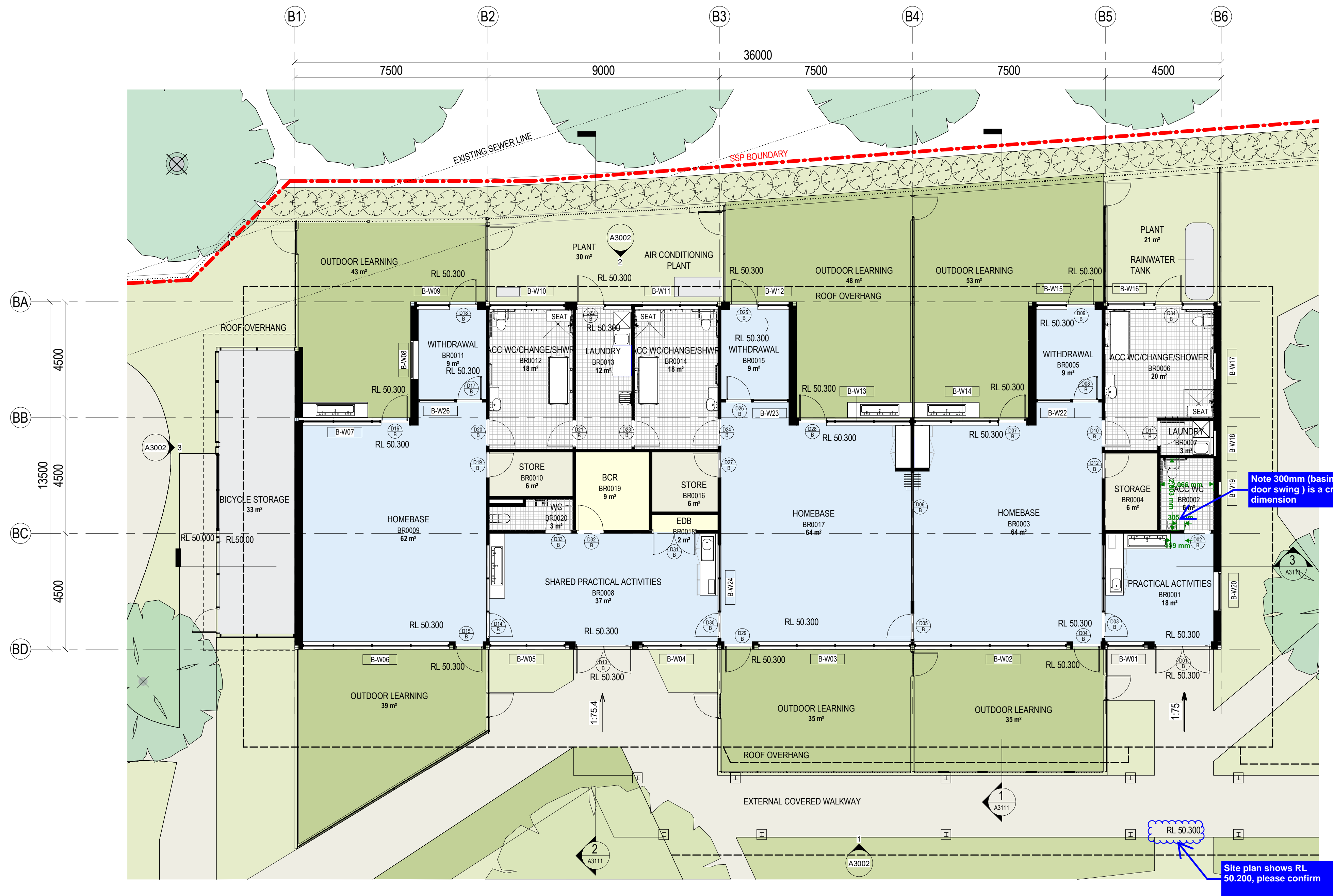
BLOCK A PLAN

Scale	As indicated		
Drawing Created (date)			
Drawing Created (by)	CH		
Plotted and checked by	RF		
Verified	RF		
Approved	RK		
Project No	Drawing No	Issue	
190941	A2001	O	

This drawing is the copyright of Group GSA Pty Ltd and may not be altered, reproduced or transmitted in any form or by any means in part or in whole without the written permission of Group GSA Pty Ltd. All levels and dimensions are to be checked and verified on site prior to the commencement of any work, making of shop drawings or fabrication of components.
Do not scale drawings. Use figured Dimensions.



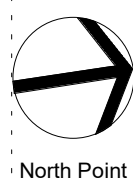
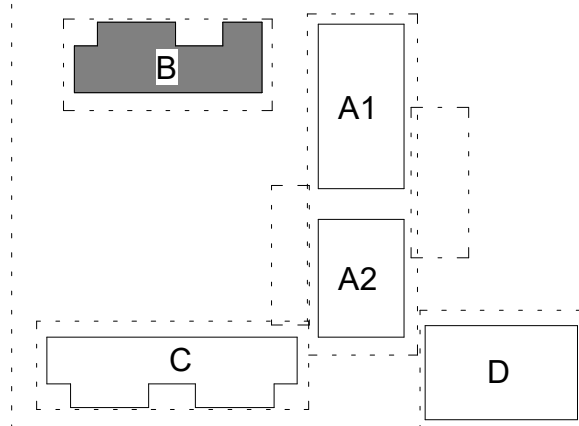
16/03/2021 11:58:05 PM



1 BLOCK B FLOOR PLAN
1:100

- PLAN LEGEND**
- SSP BOUNDARY
 - EXISTING SEWERLINE
 - EXISTING TREES
 - PROPOSED TREES
 - BOUNDARY TREES
 - DOE OWNERSHIP

Amendments		
Issue	Description	Date
A	ISSUE FOR INFORMATION	10/11/2020
B	ISSUE FOR INFORMATION	11/11/2020
C	ISSUE FOR INFORMATION	17/11/2020
D	ISSUE FOR INFORMATION	18/12/2020
E	ISSUE FOR INFORMATION	18/01/2021
F	ISSUE FOR INFORMATION	22/01/2021
G	ISSUE FOR INFORMATION	29/01/2021
H	ISSUE FOR INFORMATION	05/02/2021
I	ISSUE FOR INFORMATION	05/02/2021
J	SCHEMATIC DESIGN	12/02/2021
K	ISSUE FOR INFORMATION	25/02/2021
L	ISSUE FOR INFORMATION	28/02/2021
M	ISSUE FOR INFORMATION	02/03/2021
N	ISSUE FOR INFORMATION	10/03/2021
O	ISSUE FOR INFORMATION	16/03/2021



FOR INFORMATION

Project Manager

SJA
Level 1, 109 Pitt Street, NSW, 2000
02 9236 5000

Structural and Civil

HHH
Suite 2.01, 828 Pacific Highway, Gordon, NSW, 2072
02 9417 8400

Services

INTELLE
Level 2, 350 Kent Street, Sydney, NSW, 2000
02 9772 3800

BCA Consultant

STEVE WATSON + PARTNERS
Level 17, 456 Kent Street, Sydney, NSW, 2000
02 9283 6555

Client

SCHOOL INFRASTRUCTURE NSW
Level 8, 259 George Street, Sydney, NSW, 2000
1300 482 651



Group GSA Pty Ltd ABN 76 002 113 779
Australia 2011
www.groupgsa.com

T +612 9361 4144 F +612 9332 3458

architecture interior design urban design landscape
nom architect M. Sheldon 3990
Project Title

BUDAWANG RELOCATION

Drawing Title

BLOCK B PLAN

Scale As indicated

Drawing Created (date)

Drawing Created (by) CH

Plotted and checked by RF

Verified RF

Approved RK

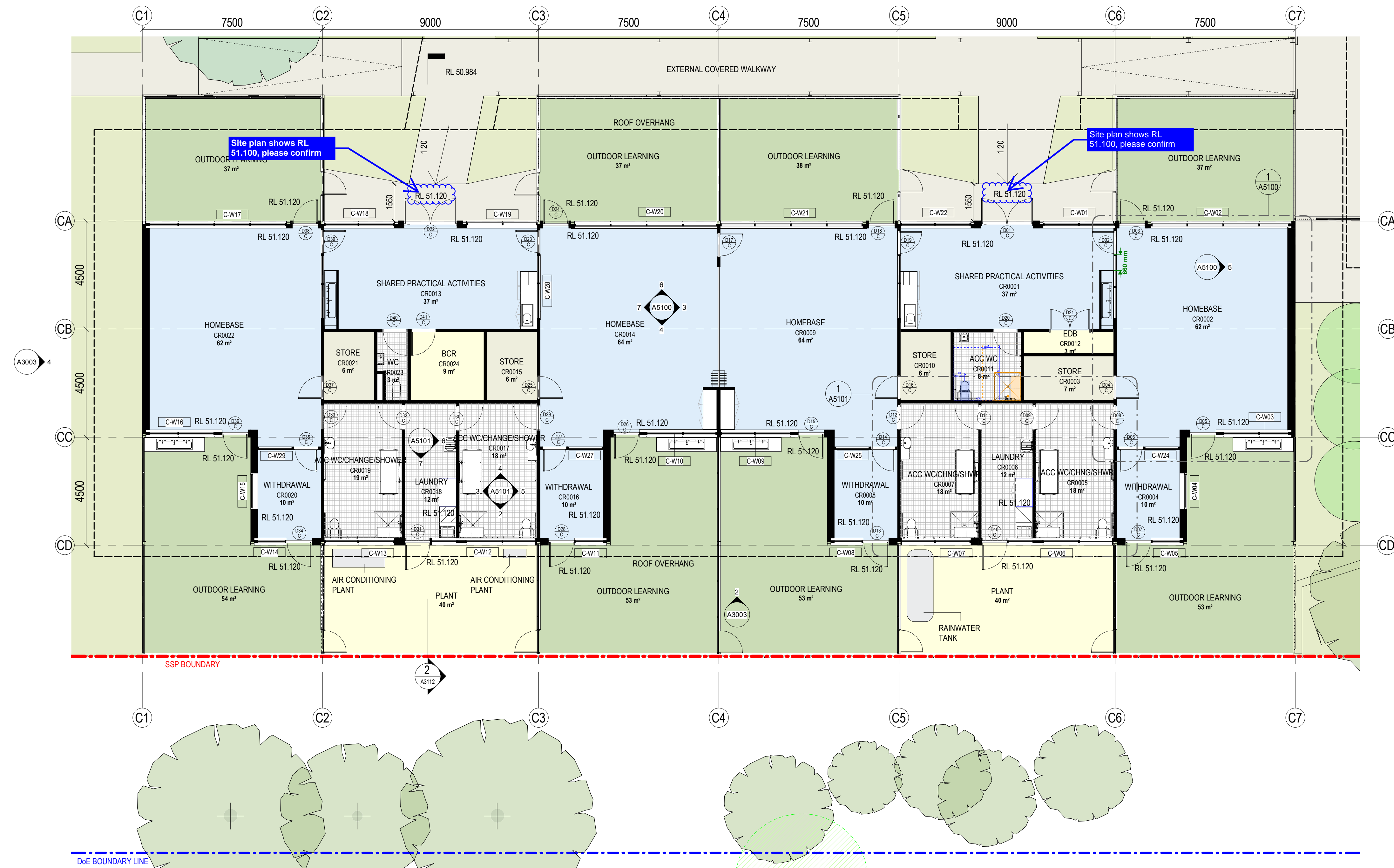
Project No Drawing No Issue

190941 A2002

O

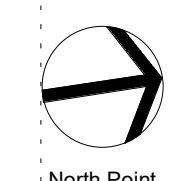
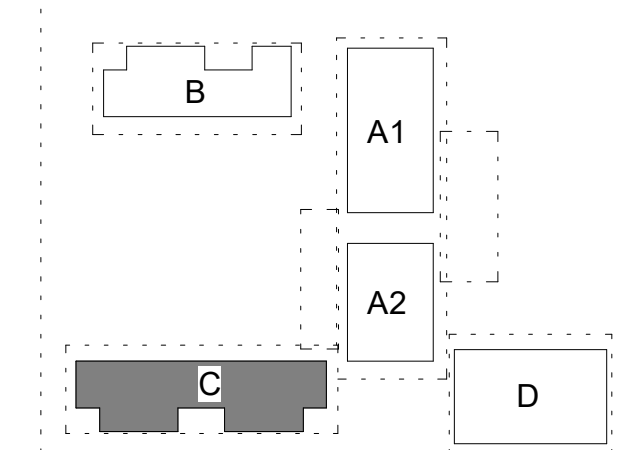
This drawing is the copyright of Group GSA Pty Ltd and may not be altered, reproduced or transmitted in any form or by any means in part or in whole without the written permission of Group GSA Pty Ltd. All levels and dimensions are to be checked and verified on site prior to the commencement of any work, making of shop drawings or fabrication of components.
Do not scale drawings. Use figured Dimensions.





- PLAN LEGEND**
- SSP BOUNDARY
 - EXISTING SEWERLINE
 - EXISTING TREES
 - PROPOSED TREES
 - BOUNDARY TREES
 - DOE OWNERSHIP

Amendments		
Issue	Description	Date
A	ISSUE FOR INFORMATION	10/11/2020
B	ISSUE FOR INFORMATION	11/11/2020
C	ISSUE FOR INFORMATION	17/11/2020
D	ISSUE FOR INFORMATION	18/12/2020
E	ISSUE FOR INFORMATION	18/01/2021
F	ISSUE FOR INFORMATION	22/01/2021
G	ISSUE FOR INFORMATION	29/01/2021
H	ISSUE FOR INFORMATION	05/02/2021
I	ISSUE FOR INFORMATION	05/02/2021
J	SCHEMATIC DESIGN	12/02/2021
K	ISSUE FOR INFORMATION	28/02/2021
L	ISSUE FOR INFORMATION	10/03/2021
M	ISSUE FOR INFORMATION	16/03/2021



FOR INFORMATION

Project Manager
SJA
Level 1, 109 Pitt Street, NSW, 2000
02 9236 5000

Structural and Civil
H+H
Suite 2.01, 828 Pacific Highway, Gordon, NSW, 2072
02 9417 8400

Services
INTELLE
Level 2, 350 Kent Street, Sydney, NSW, 2000
02 9772 3600

BCA Consultant
STEVE WATSON + PARTNERS
Level 17, 456 Kent Street, Sydney, NSW, 2000
02 9283 6555

Client
SCHOOL INFRASTRUCTURE NSW
Level 8, 259 George Street, Sydney, NSW, 2000
1300 482 851

GROUP GSA

Group GSA Pty Ltd ABN 76 002 113 779
Level 7, 80 William St East Sydney NSW
Australia 2011
www.groupgsa.com

T +612 9361 4144 F +612 9332 3458

architecture interior design urban design landscape
nom architect M. Sheldon 3990
Project Title

**BUDAWANG
RELOCATION**

Drawing Title

BLOCK C PLAN

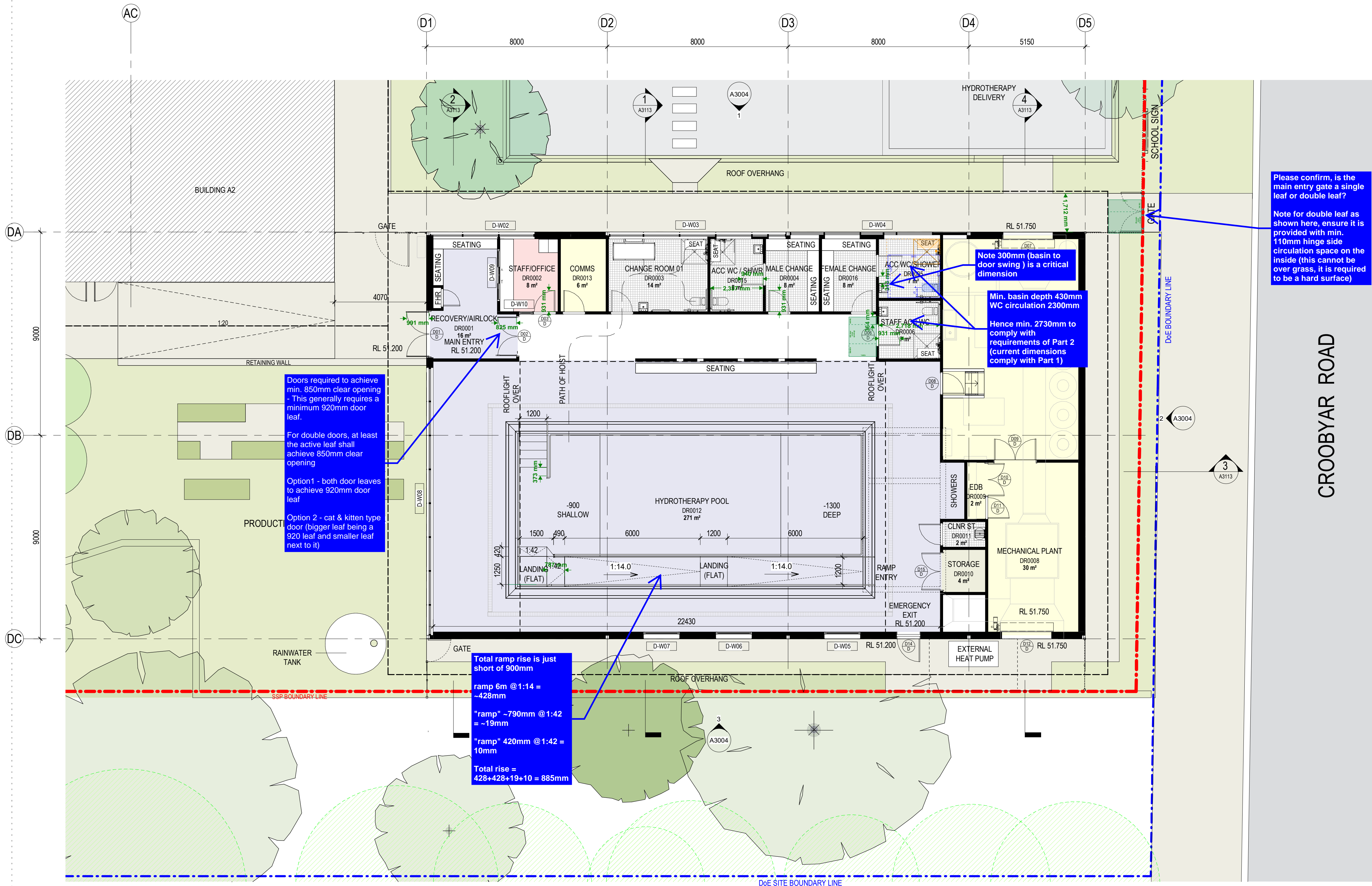
Scale	As indicated	
Drawing Created (date)		
Drawing Created (by)	CH	
Plotted and checked by	RF	
Verified	RF	
Approved	RK	
Project No	Drawing No	Issue

190941 A2003 M

This drawing is the copyright of Group GSA Pty Ltd and may not be altered, reproduced or transmitted in any form or by any means in part or in whole without the written permission of Group GSA Pty Ltd. All levels and dimensions are to be checked and verified on site prior to the commencement of any work, making of shop drawings or fabrication of components.
Do not scale drawings. Use figured Dimensions.



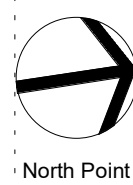
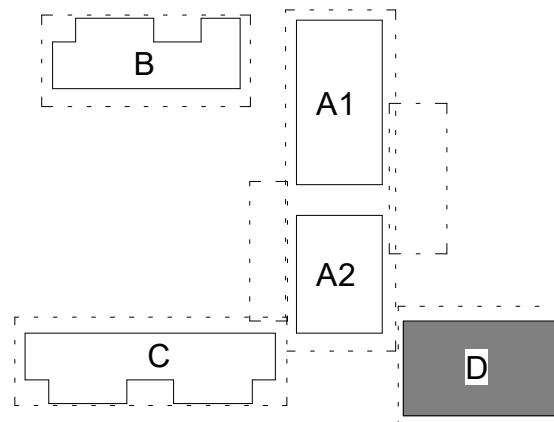
1 BLOCK C FLOOR PLAN
1:100



1 BLOCK D FLOOR PLAN
1:100

- PLAN LEGEND**
- SSP BOUNDARY
 - EXISTING SEWERLINE
 - EXISTING TREES
 - PROPOSED TREES
 - BOUNDARY TREES
 - DOE OWNERSHIP

Amendments		
Issue	Description	Date
A	ISSUE FOR INFORMATION	10/11/2020
B	ISSUE FOR INFORMATION	11/11/2020
C	ISSUE FOR INFORMATION	17/11/2020
D	ISSUE FOR INFORMATION	10/12/2020
E	ISSUE FOR INFORMATION	24/12/2020
F	ISSUE FOR INFORMATION	06/01/2021
G	ISSUE FOR INFORMATION	08/01/2021
H	ISSUE FOR INFORMATION	18/01/2021
I	ISSUE FOR INFORMATION	22/01/2021
J	ISSUE FOR INFORMATION	28/01/2021
K	ISSUE FOR INFORMATION	05/02/2021
L	ISSUE FOR INFORMATION	05/02/2021
M	SCHEMATIC DESIGN	12/02/2021
N	ISSUE FOR INFORMATION	24/02/2021
O	ISSUE FOR INFORMATION	28/02/2021
P	ISSUE FOR INFORMATION	16/03/2021



FOR INFORMATION

Project Manager

SJA
Level 1, 109 Pitt Street, NSW, 2000
02 9236 5000

Structural and Civil

H+H
Suite 2.01, 828 Pacific Highway, Gordon, NSW, 2072
02 9417 8400

Services

INTELLE
Level 2, 350 Kent Street, Sydney, NSW, 2000
02 9772 3600

BCA Consultant

STEVE WATSON + PARTNERS
Level 8, 259 Kent Street, Sydney, NSW, 2000
02 9283 6555

Client

SCHOOL INFRASTRUCTURE NSW
Level 8, 259 George Street, Sydney, NSW, 2000
1300 482 851

GROUP GSA

Group GSA Pty Ltd ABN 76 002 113 779
Level 7, 80 William St East Sydney NSW
Australia 2011
www.groupgsa.com

T +612 9361 4144 F +612 9332 3458

architecture interior design urban design landscape
nom architect M. Sheldon 3990
Project Title

**BUDAWANG
RELOCATION**

Drawing Title

HYDROTHERAPY PLAN

Scale As indicated

Drawing Created (date)

Drawing Created (by) CH

Plotted and checked by RF

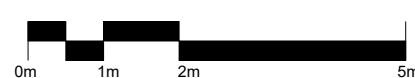
Verified RF

Approved RK

Project No Drawing No Issue

190941 A2004 P

This drawing is the copyright of Group GSA Pty Ltd and may not be altered, reproduced or transmitted in any form or by any means in part or in whole without the written permission of Group GSA Pty Ltd. All levels and dimensions are to be checked and verified on site prior to the commencement of any work, making of shop drawings or fabrication of components.
Do not scale drawings. Use figured Dimensions.



17/03/2021 12:01:53 AM

Design Confidence Pty Limited

Shop 2, 35 Buckingham Street, Surry Hills NSW 2010

ABN: 72 896 582 485

T: (02) 8399 3707

E: sydney@designconfidence.com

W: www.designconfidence.com

This document is and shall remain the property of Design Confidence. The technical and intellectual content contained herein may only be used for the purpose for which it was commissioned and in accordance with the Terms of Engagement for the commission.

Unauthorised use of this document in any form whatsoever is prohibited.
