



Minister's Specification

SA 78A

Housing on designated Aboriginal lands

May 2009





Development Act 1993

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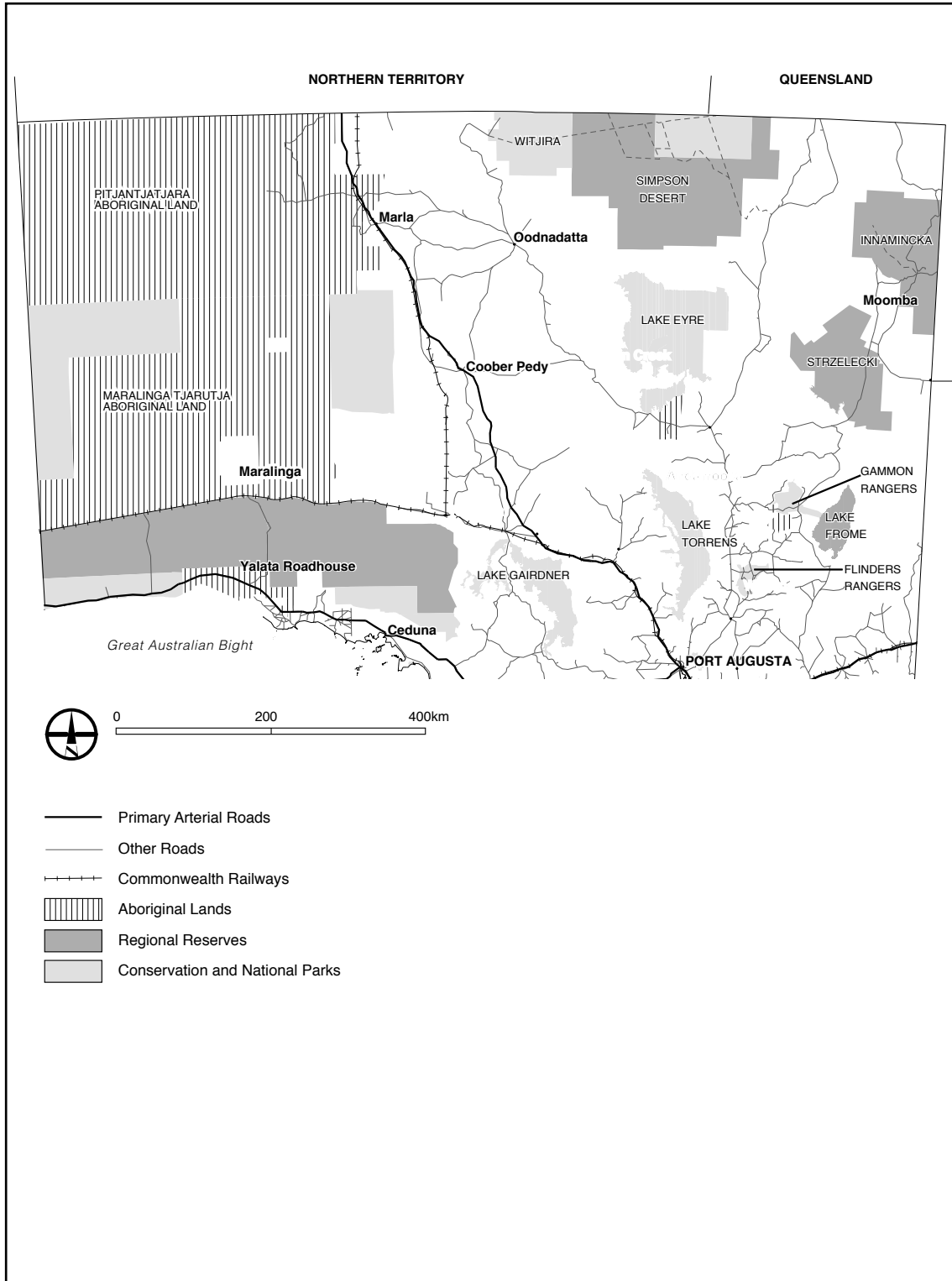


FIGURE 1 Designation of Aboriginal Lands



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SCOPE

The Specification outlines the requirements for increased levels of durability, sustainability and health and safety for housing (Class 1 buildings as defined in the Building Code of Australia), located on designated Aboriginal lands in Western South Australia, which are subject to harsh environmental conditions and limited access to maintenance facilities. These conditions necessitate requirements additional to those prescribed in the Building Code of Australia (BCA).

This Minister's Specification shall be read in conjunction with Regulation 78A of the Development Regulations 2008.

APPLICATION

For the purposes of this Minister's Specification, a house is on designated Aboriginal land when it is located on any of the following lands (refer to Figure 1).

- The Anangu Pitjantjatjara Yankunytjatjara Lands including:
 - (a) Granite Downs Station
 - (b) Lambina Station
- The following land held by the Indigenous Land Corporation:
 - (a) Mt Willoughby Station
 - (b) Mt Clarence Station
 - (c) Mabel Creek Station
- Land owned or occupied by the Umoona Community; excluding properties within Coober Pedy township.
- Land owned or occupied by the Dunjiba Community within the township of Oodnadatta.
- The Maralinga Tjarutja Lands, including land owned or occupied by the Oak Valley Community.
- Land held by the Aboriginal Lands Trust at Yalata or owned or occupied by the Yalata Community.
- Land owned or occupied by the Irrwanyere Community within Witjira National Park



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INTERPRETATION

Approved, for the purpose of this Minister's Specification, means approved by the relevant authority (the Development Assessment Commission or a registered private certifier).

Floor waste means a grated inlet within a graded floor, intended to drain the floor.

R2, R3 means the designated level of thermal resistance of an element of the building, measured in m².K/W. R2 and R3 is equivalent to a thermal resistance of 2 m².K/W and 3 m².K/W respectively.

Shower base means a pre-formed, pre-finished vessel which is installed as the finished floor of a shower compartment and which is provided with a connection point to a shower waste.

Shower tray means a waterproof liner which is installed in a shower compartment prior to the application of the floor and wall finishing system and which is drained into a drainage flange in the shower waste, and where applicable, the floor waste.

Shower waste means a floor waste in the floor of a shower enclosure

UDB means Unenclosed Distance between Buildings

Wet area, for the purpose of this Minister's Specification, means a room containing a shower, bath, hand basin, vanity bowl, water closet, washing machine or trough.

STANDARDS ADOPTED BY REFERENCE

Table 1: Schedule Of Referenced Documents.		
No.	Date	Title
AS/NZS 1170 Part 1	2002	Structural design actions Permanent, imposed and other actions
Part 2	2002	- Amdt 1 Wind actions - Amdt 1
AS 1428 Part 1	2001	Design for Access and Mobility General requirements for access-New building work
AS 2688	1984	Timber doors
AS 3786	1993	Smoke alarms - Amdt 1 - Amdt 2 - Amdt 3 - Amdt 4
AS 4055	2006	Wind loads for housing - Amdt 1



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OBJECTIVE

The objectives of the Building Code of Australia (BCA) are applicable to all housing on Aboriginal lands. The Ministers Specification SA 78A specifies the following additional requirements:

O1 Health and Amenity

O1.1 Energy Efficiency

The Objective is to facilitate efficient use of energy in a building and to minimise greenhouse gas emissions.

O2 Maintenance

O2.1 The Objective is to ensure that people are protected from illness, injury and loss of amenity throughout the life of the building.

FUNCTIONAL STATEMENT

The functional statements of the Building Code of Australia are applicable to all housing on Aboriginal lands. The Ministers Specification SA 78A specifies the following additional requirements:

F1 Health and Amenity

F1.1 Energy Efficiency

A building is to be constructed to achieve efficient use of energy for internal heating and cooling.

F2 Maintenance

F2.1 Where a building is to be constructed in an area where access to maintenance facilities is limited, that building shall be designed and constructed to safeguard people from illness or injury and to prevent the loss of amenity.



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PERFORMANCE REQUIREMENT

The performance requirements of the Building Code of Australia are applicable to all housing on Aboriginal lands. The Ministers Specification SA 78A specifies the following additional requirements:

P1 Health and Amenity

P1.1 Wet Areas

(The following additional performance requirement is to be read in conjunction with BCA Section 2 Objective 2.4.1, Functional Statement 2.4.1 and Performance Requirement 2.4.1 – Wet Areas.)

To protect the structure of the building and to maintain the amenity of the occupants, water must be prevented from flowing from the *wet area* to adjacent rooms.

P1.2 Facilities

(The following additional performance requirement is to be read in conjunction with BCA Section 2 Objective 2.4.3, Functional Statement 2.4.3 and Performance Requirement 2.4.3 - Facilities.)

- (i) A space within and beneath a dwelling used by occupants is to be protected from access by animals and is to allow the efficient and easy maintenance of hygienic conditions.
- (ii) Windows must be located such that the entry of airborne dust particles is minimised.

P2 Maintenance

P2.1 The equipment, materials, installations and components used in a building and essential to the safety of the people, shall be resistant to accidental damage and have minimal maintenance requirements.



ACCEPTABLE CONSTRUCTION PRACTICES

The following acceptable construction practices are either deemed-to-satisfy the performance requirements of this Minister's Specification or are supplementary acceptable construction practices to the performance requirements of the BCA.

1 Wet Areas

1.1 Application

Compliance with this Part satisfies Performance Requirement - SA 78A - P1.1 for *wet areas* provided the *wet area* also complies with the relevant provisions of the BCA.

1.2 Wet Areas

- (a) *Wet areas* must have one or more of the following provisions to prevent effluent entering the living areas of a house as a consequence of drain blockage:
 - (i) The floor level of the *wet area* shall be set-down a minimum of 50mm from the floor level of the house, or graded to an outer edge that it at least 50mm lower than the floor level of the house (refer to Table 2, Figure 2, 3, & 4) with:
 - a) an overflow path to the threshold of and an external doorway 50mm (min) below house FL, or
 - b) an overflow outlet discharging externally above ground or paving level;
 - (ii) Horizontal separation (unenclosed) greater than 5000mm – no set down required (refer to Table 2 & Figure 2);
 - (iii) An overflow outlet is to be provided in a room containing only a water closet.
- (b) Where an overflow outlet is required and / or installed it must:
 - (i) pass through an external *wet area* wall with fall to the outside; and
 - (ii) discharge above the ground or paving; and
 - (iii) have the internal invert at 50mm below the finished floor level of the main building; and
 - (iv) have a vermin proof flap and a minimum openable area of 7850mm²
- (c) Floors must be finished to a fall of between 1:50 and 1:65 in the *shower areas* and between 1:40 and 1:100 in remaining *wet areas* (refer Figures 3 & 4); where there are no floor finishes or the finish is adhered directly to the graded concrete, a *shower tray* or *shower base* is not required.

Table 2: Wet Area Set Downs.	
Unenclosed Distance between Buildings (UDB)*	Set Down (mm)
UDB* < 5000mm	50mm
UDB* ≥ 5000mm	No Set Down Required

*Note: The unenclosed distance between buildings is the distance between the adjacent walls of the buildings.



2 Sanitary Drainage

2.1 Application

Compliance with this Part satisfies Performance Requirement - SA 78A - P1.1 for sanitary drainage provided the sanitary drainage complies with all other relevant provisions of the BCA.

2.2 Drainage requirements

- The amount of underfloor plumbing must be minimised. All underfloor pipe work shall be DN100 sewer grade uPVC pipe, except the branches to the tundish for the hot water system, laundry trough, washing machine, basins and bath.
- Shower wastes* and *shower waste* gullies must be not less than DN100 and shall be connected to DN100 uPVC pipe. DN150/DN100 polypropylene stormwater grates may be used.
- Floor waste* gullies must be not less than DN100 and must be connected to a DN100 uPVC waste pipe draining to an *approved* waste disposal system. DN150/DN100 polypropylene stormwater grates may be used.

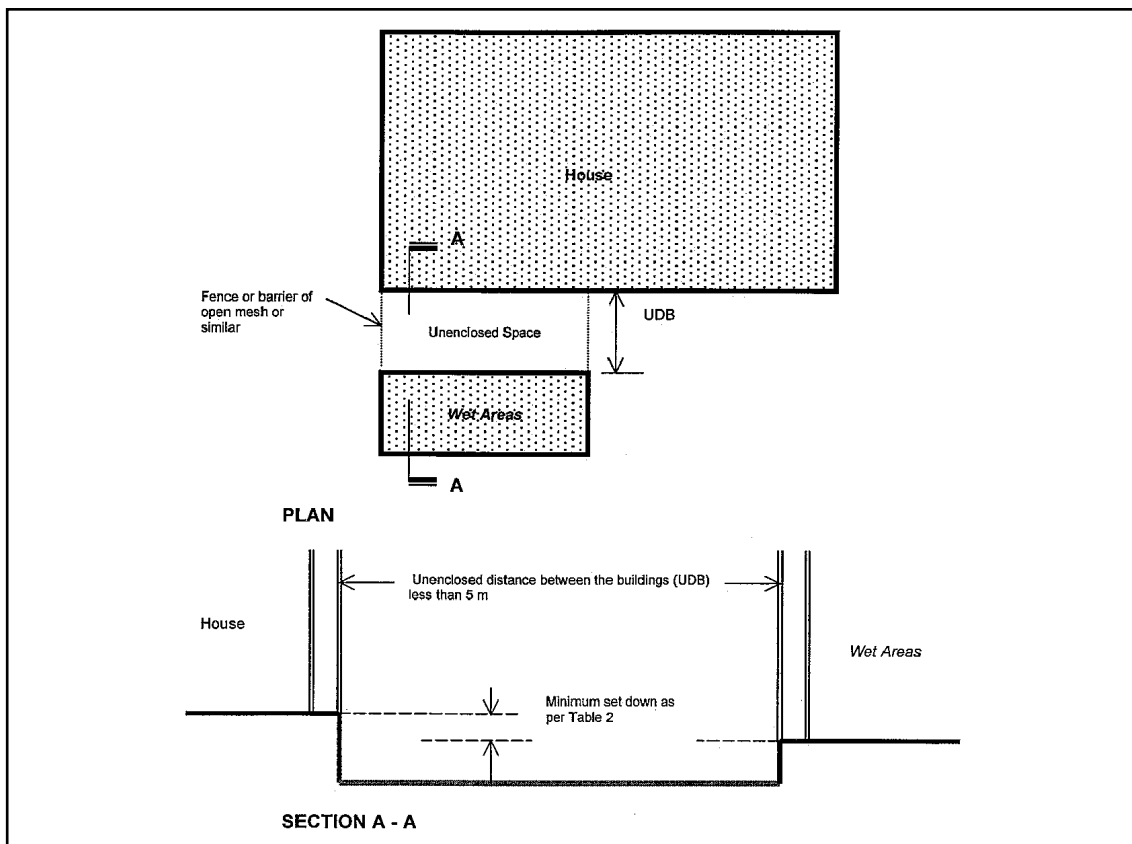


FIGURE 2 Wet area separated to the house, with the space between the buildings unenclosed.

Not to scale



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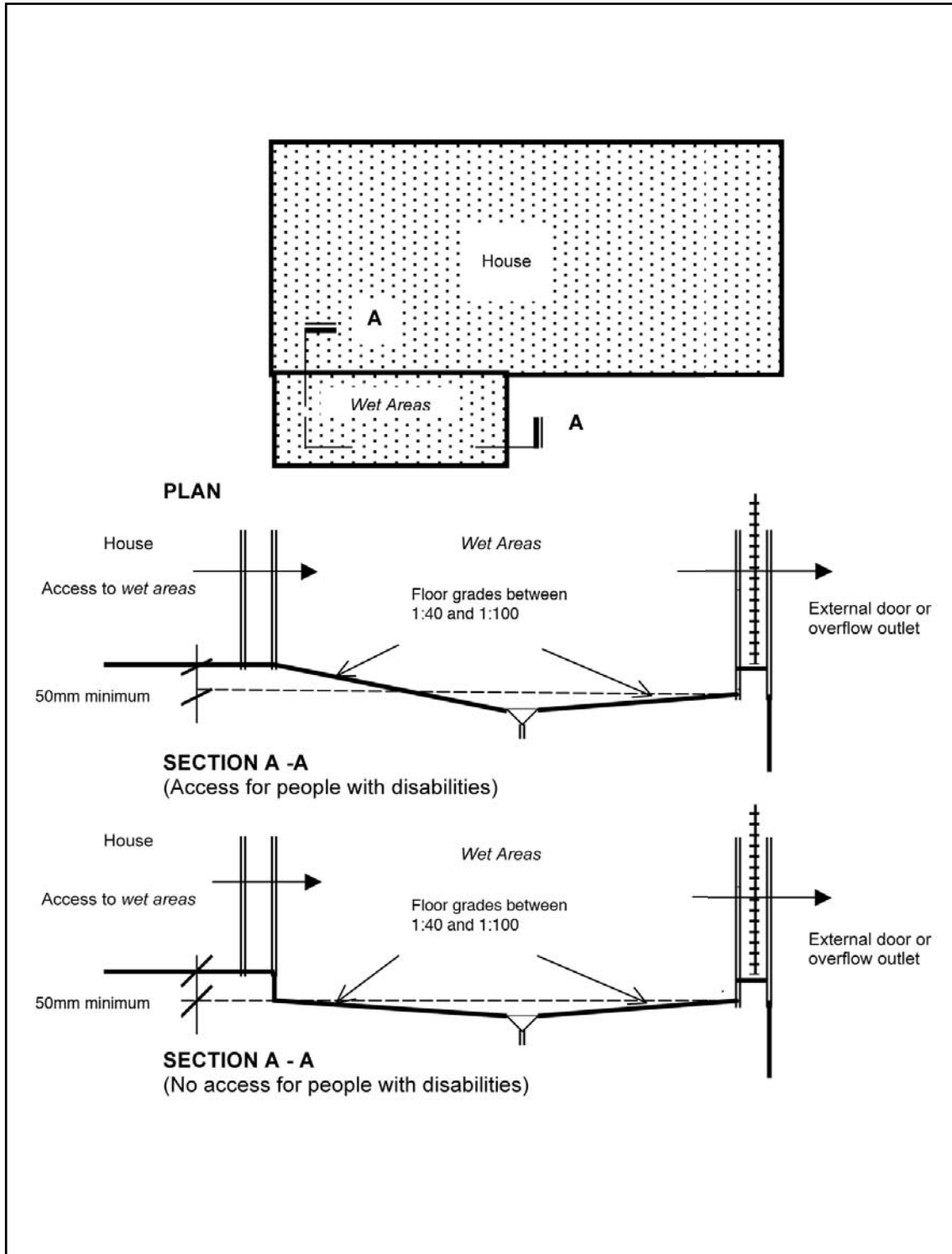


FIGURE 3 Wet area located within the house.

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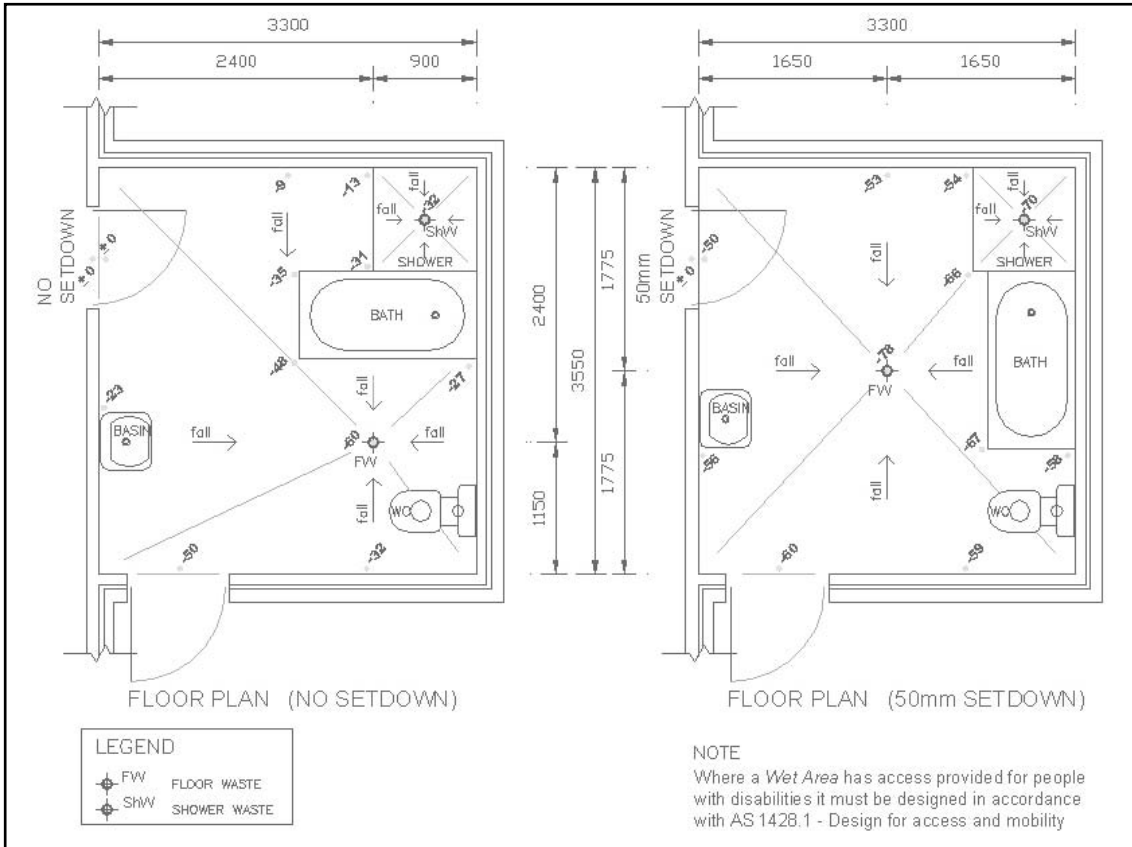


FIGURE 4 Worked examples of wet areas with and without setdowns.

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3 Termite Protection

3.1 Application

Compliance with this Part satisfies Performance Requirements - BCA Section 2, 2.1 & SA 78A - P2.1 for termite protection.

3.2 Materials

- (a) Termite protection shall be achieved by using structural materials that are not subject to termite attack (eg steel, concrete and masonry).
- (b) Chemical treatments and termite protection methods that require regular maintenance shall not be used.

3.3 Floors

Floors shall be constructed such that they are termite resistant.



4 Energy Efficiency Insulation

4.1 Application

Compliance with this Part satisfies Performance Requirement - SA 78A - P2.1 for insulation and verandahs.

4.2 Verandahs

All Class 1 buildings must include at least one outdoor covered area, either attached to the house or as a separate structure, with a minimum area of 10m² and a width of not less than 2400mm. The required outdoor covered area must have two or more sides open and not less than one third of its perimeter open.

5 Roof Gutter Brackets

5.1 Application

Compliance with this Part satisfies the Performance Requirements - BCA Section 2, 2.1, 2.2.1 and SA 78A - P2.1 for gutter brackets.

5.2 Materials

Roof gutters shall be supported by gutter brackets spaced at a maximum of 900mm centres.

6 Floor Finishes

6.1 Application

Compliance with this Part satisfies the Performance Requirement - SA 78A - P2.1 for floor finishes

6.2 Materials

Finishes shall be non-textile, hard wearing and washable.

7 Walls

7.1 Application

Compliance with this Part satisfies Performance Requirements - BCA Section 2, 2.1 and SA 78A - P2.1 for walls.

7.2 Stiffness requirements

All walls when completed shall achieve a stiffness such that when a live load of 0.75 kN/m is applied 1200mm above the floor, the maximum deflection at the line of applied force is 6mm or the height/400, whichever is the more severe.



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7.3 Materials

- (a) The following internal wall linings supported on 75 x 32 x 1mm thick C section studs at 600mm maximum centres and with maximum unsupported height of 2700mm, are deemed to satisfy the above requirement -
 - (i) Pre-finished, pre-coloured fluted or profiled sheet steel.
 - (ii) 9mm ply (treated to resist termites).
 - (iii) 9mm fibre-cement sheet.
- (b) Alternative materials may be used, however, they must demonstrate the same soft and hard body impact resistance as one of the materials listed in (a), when tested by a *Registered Testing Authority* as defined in the BCA.
- (c) Wall linings in *wet areas* shall be 9mm fibre-cement sheet or rendered masonry.

7.4 Finishes

All internal wall linings shall be finished such that they are washable.

8 Windows

8.1 Application

Compliance with this Part satisfies Performance Requirements - SA 78A - P1.2 (i) for opening sash height and SA 78A - P1.2 (ii) for security screens.

8.2 Opening sash height

The lowest openable part of each window shall be at least 1000mm above adjacent finished ground level.

8.3 Security Screens

- (a) Openable parts of windows shall be fitted with security screens.
- (b) Where security screens are fitted to bedroom windows, and there is no external door to the bedroom, the security screen to at least one openable sash shall be fitted with an identified escape system.

9 Doors

9.1 Application

Compliance with this Part satisfies Performance Requirements - BCA Section 2, 2.1, 2.2.2 and SA 78A - P2.1 for doors.

9.2 Standard of Manufacture

All flush panel doors shall be solid core doors manufactured in accordance with AS 2688. Solid core doors shall be of interior or exterior quality, to suit the location of the door, with particle board or medium density fibre board cores complying with the requirements set out in AS2688.



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10 Glazing

10.1 Application

Compliance with this Part satisfies Performance Requirements - BCA Section 2, 2.1, 2.2.2 and SA 78A - P2.1 for window glazing.

10.2 Materials

Materials shall be polycarbonate of suitable thickness, designed to withstand the combinations of loads that they are likely to be subject to. Wind loads must be determined in accordance with the Australian Standard AS 1170, parts 1 and 2 or AS 4055.

10.3 Glazing Details (Supported on all sides)

(a) Wind loading requirements

The minimum thickness of polycarbonate glazing shall comply with Table 3:

Table 3: Maximum short dimension of polycarbonate panel size for fully framed glazing at differing wind speeds.			
Maximum Short Dimension (m)			
Sheet Thickness (mm)	Design Wind Speed (m/s)		
	28	33	41
4.5	1.21	1.12	0.98
6	1.60	1.50	1.36
9.5	1.99	1.88	1.73
12.7	2.40	2.40	2.40

10.4 Thermal movement

(a) Frame design shall incorporate sufficient depth of glazing rebate to counter the thermal expansion and contraction properties of the polycarbonate.

(b) The minimum allowances for thermal movement shall be as per Table 4 & Figure 5.

10.5 Sealants

Sealants and gaskets shall be compatible with the polycarbonate glazing.



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Table 4:
Expansion* and Contraction Allowance, Edge engagement and Rebate Depth ** for varying sheet thickness (based on a $\pm 27.8^\circ\text{C}$ temperature change from installation).

Glazing Dimensions (mm)	Up to 600mm	601-900mm	901-1200mm	1201-1500mm	1501-1800mm	1801-2100mm	2101 - 2400mm
Edge Engagement (use LONG dimension)	8	12.5	15.9	19	22.2	25.4	31.8
Expansion 0.8	0.8	1.6	2.4	2.4	3.2	4	4.8
Contraction 0.8	0.8	1.6	2.4	2.4	3.2	4	4.8
Total Rebate Depth	9.6	15.7	20.7	23.8	28.6	33.4	41.4

*Expansion allowance – dimension should be reduced by the amount indicated in the expansion column.

**Rebate Depth = Edge engagement + expansion + contraction (refer Figure 5).

11 Underfloor Access Restrictions

11.1 Application

Compliance with this Part satisfies Performance Requirement - SA 78A - P1.2 for underfloor access restrictions.

11.2 Barrier requirements

- A solid barrier that is resistant to termite attack and corrosion such as masonry, concrete or the like, shall be provided around the perimeter of each house, to a depth of at least 300mm below the ground surface.
- The barrier shall incorporate sub-floor ventilation where such ventilation is required.

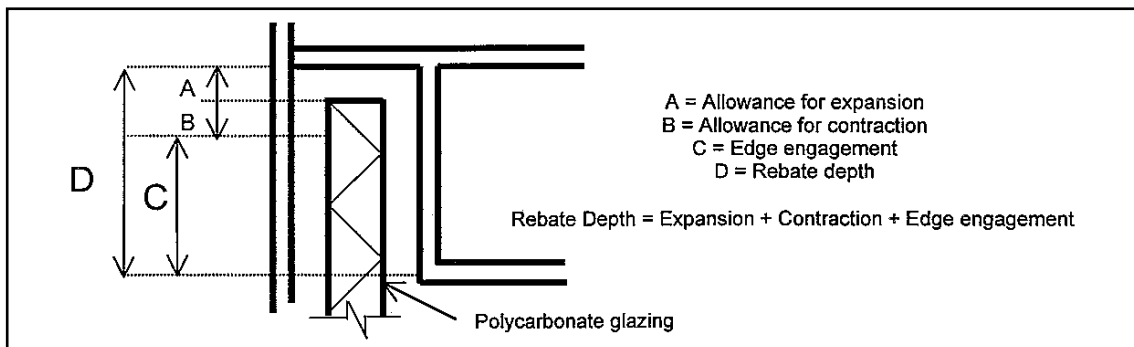


FIGURE 5 Rebate depth detail

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12 Stormwater

12.1 Application

Compliance with this Part satisfies Performance Requirements - BCA Section 2, 2.1 and 2.2 for stormwater provided all other aspects of stormwater disposal are in accordance with the BCA.

12.2 Stormwater drainage

Stormwater drainage including overflows from rainwater tanks shall be directed away from the building footing a minimum of 1.2 metres.

13 Smoke Alarms

13.1 Application

Compliance with this Part satisfies Performance Requirements - BCA Section 2, 2.3.2 and SA 78A - P2.1 for smoke alarms provided all other smoke alarm requirements are in accordance with the BCA.

13.2 Smoke alarm selection where attached to metal sheeting.

Where smoke alarms are attached to metal ceiling linings they may be powered by a 10-year life, non-replaceable, non-removable, permanently connected battery.



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NOTES:

The following Specification notes are outside the jurisdiction of the Development Act 1993 and are included as recommendations only.

14 General Power Outlets (GPO's) and Light Switches

GPO's and light switches should be impact resistant, weatherproof and positioned at sufficient height (1400mm min.) to be inaccessible to young children. Where access for people with disabilities is provided GPO's and light switches shall be positioned as per AS 1428 – 2001 'Design for Access and Mobility Part 1: General requirements for access – New building work'

15 Light Fittings

Fluorescent lights (generally 18 watt) should be used to reduce power consumption requirements.

16 Fencing

Fencing should not be woven chain wire. Open fencing should be steel welded mesh made from 6mm minimum wire at 100mm centres (in both directions).

17 Internal Fixtures

Internal fixtures such as cupboards and shelving should be moisture resistant (painted moisture resistant medium density fibreboard, is acceptable). Bench tops in the kitchen should be stainless steel for durability and ease of cleaning. Cupboard and shelf units should have an internal steel frame.

18 Rainwater Tanks

Each house should be provided with a supplementary water supply by way of a rainwater tank or tanks of at least 13,000 litres total capacity. All roof water should be directed into the tank or tanks.