

INTRODUCTION

This information sheet is to assist the preparation of and review of Development Application (DA) submissions. It does not replace the need to comply with the detailed provisions of the Australian Standards (AS) and the Building Code of Australia (BCA). In the preparation of Building Application (BA) documentation and the implementation in construction it is important that all the detailed provisions required and intended by the BCA and Australian Standards are met.

All the following sections A – L should be included in the DA drawings. "Items for noting" can be on the DA drawings or in separate correspondence. The item number refers to the item in AS 4299 Appendix A.

AS 4299 generally refers to compliance with AS 1428.1 except for the main entry door (refer E) and door to main bedroom (refer I) which require compliance with AS 1428.2. Car parking refers to AS 2890 (refer D).

AS 4299 Appendix A Adaptable House Class C is the minimum level required (i.e. all essential features incorporated). Refer to Adaptable House Class B for first priority desirable features and Adaptable House Class A for all desirable features.

Note: There are areas noted in this draft information sheet which are the interpretation of the author.

A. DRAWINGS

Item 1 Pre and post adaptation drawings are required. The post adaptation needs to meet all the requirements in this information sheet.

If there is effectively no change between the two scenarios (pre and post adaptation) only one set of drawings can be submitted for review.

Note: Other details may be requested by the planning authority.

Note: Adaptable housing should be possible at relatively little extra cost. While this is not defined it is generally interpreted as:

- *No alteration of services outside the unit/dwelling.*
- *No or minimal alteration to plumbing.*
- *No or minimal alteration to floors of wet areas.*
- *No or minimal alteration to electrical services.*
- *Minimum alteration of walls, doors.*

B. SITING

Item 3 Access from the street frontage and any other pedestrian network to all adaptable units to meet AS 1428.1.

Access to all common area and facilities to meet BCA and AS 1428.1.
Access for disabled and able bodied should use same or similar route.

Access from car parking (designated to the adaptable units or disabled people) to adaptable units to meet AS 1428.1.

Access from Adaptable Units to common area and facilities to meet AS 1428.1.

The key aspects of AS 1428.1 to consider are:

- Path of travel to be paved and a minimum 1,000mm wide and include no steps.
- Maximum gradient of paths or path of travel to be 1 in 20.
- Maximum cross fall on paths or path of travel to be 1 in 40.
- Maximum fall on landings to be 1 in 40.
- Where gradient is steeper than 1 in 20 it is a ramp and requires handrails both sides, tactile indicators, kerbs etc to AS 1428.1.

Note: ACT Planning Guidelines for Access & Mobility encourage compliance with AS 1428.2 and encourage access to the main entry of all units.

In multi unit developments adaptable units should be located throughout the building in a variety of locations, levels and outlooks and cover a range of unit designs.

ACT Planning Guidelines specify these general access requirements to all multi unit housing regardless of whether these are adaptable units or not.

C. LETTERBOXES

The requirement to meet Australia Post regulations lacks clarity for people with disabilities. Therefore the following is proposed.

Item 11 Access is required to letterboxes allocated to all adaptable units. This shall meet AS 1428.1 including:

- Letterboxes located between 900mm and 1,100mm above paving.
- Maximum gradient of ground surface beside letterboxes to be 1 in 40.

In large developments with large banks of letterboxes the letterbox heights can be extended beyond the above provisions but must meet AS 1428.2. Refer sketch below.

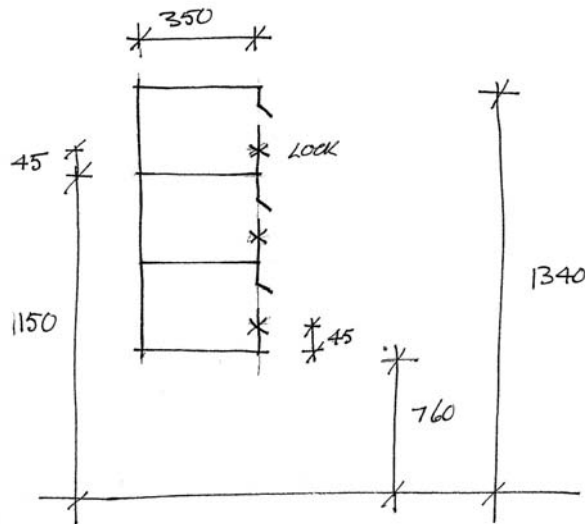


Figure 1: Reach Capability
 AS 1428.1 Clause 11.1.2 (a) states 900mm – 1,100mm
 AS 1428.2 Figure 20 & 21 indicate max height of reach is 1,350mm and lowest 230mm if max 300mm deep.

D. PARKING

Item 14 Garages & car spaces with walls both sides and ends to be a minimum 6.0 (l) x 3.8 (w) x 2.5m (h).

Open car parks to be a minimum 5.4 (l) x 3.2 (w) x 2.5m (h).

Car parks with wall on one side 5.4 (l) x 3.5 (w) x 2.5m (h).

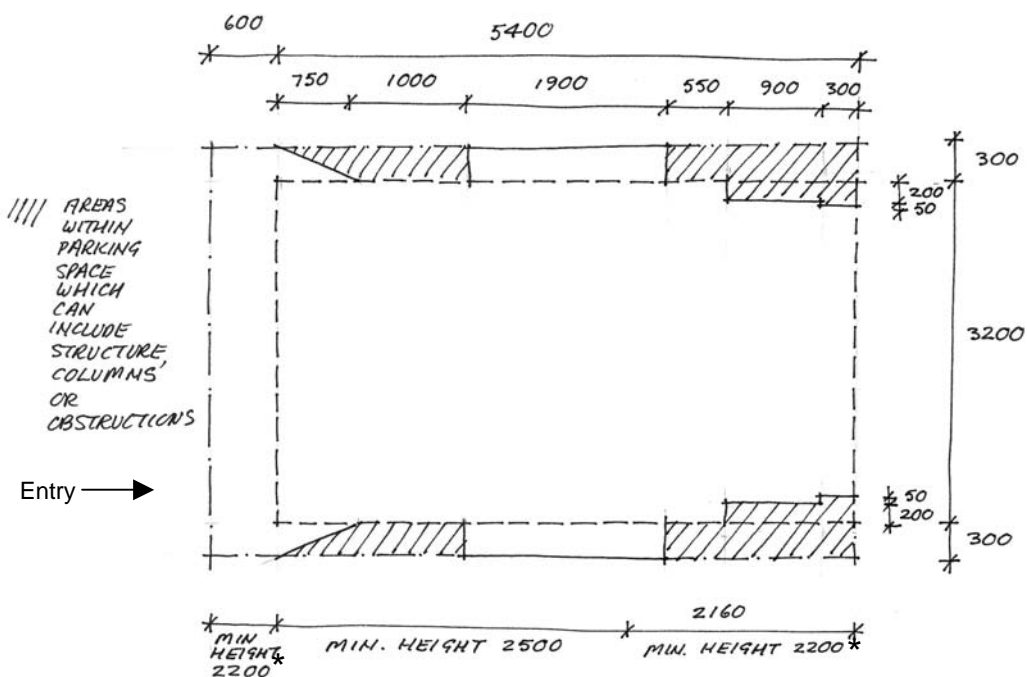


Figure 2: Car Parking Space

Note: * The minimum height in the current AS 2890 is 2,300mm so these heights should also increase to 2,300mm.

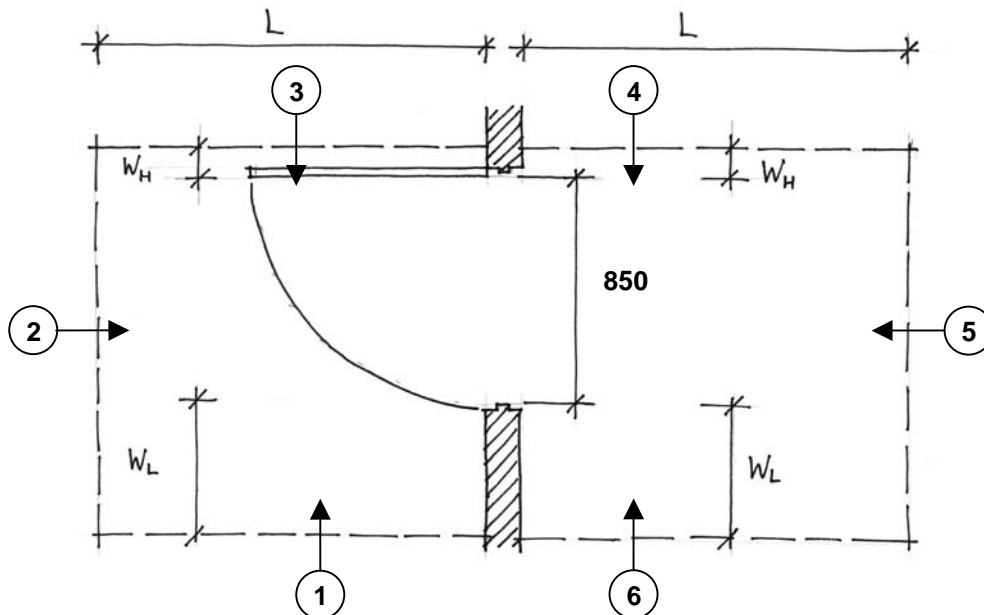
E. ACCESSIBLE ENTRY

Items 20, 24-25 Entry to meet AS 1428.2 i.e. 850mm clear opening, clearances as per Figure 3 and 4.

Item 22 Maximum grade of circulation area from Item 20 to be 1 in 40.

Item 23 Maximum 5mm step at entry.

Note: Sliding door will need to be about 1,000mm wide to achieve this.



Direction of Travel	L	WL	WH
1	1,670	860	160
2	1,450	510	160
3	1,670	860	660
4	1,220	240	660
5	1,450	510	50
6	1,240	660	145

Figure 3: Hinged Entry Door Circulation

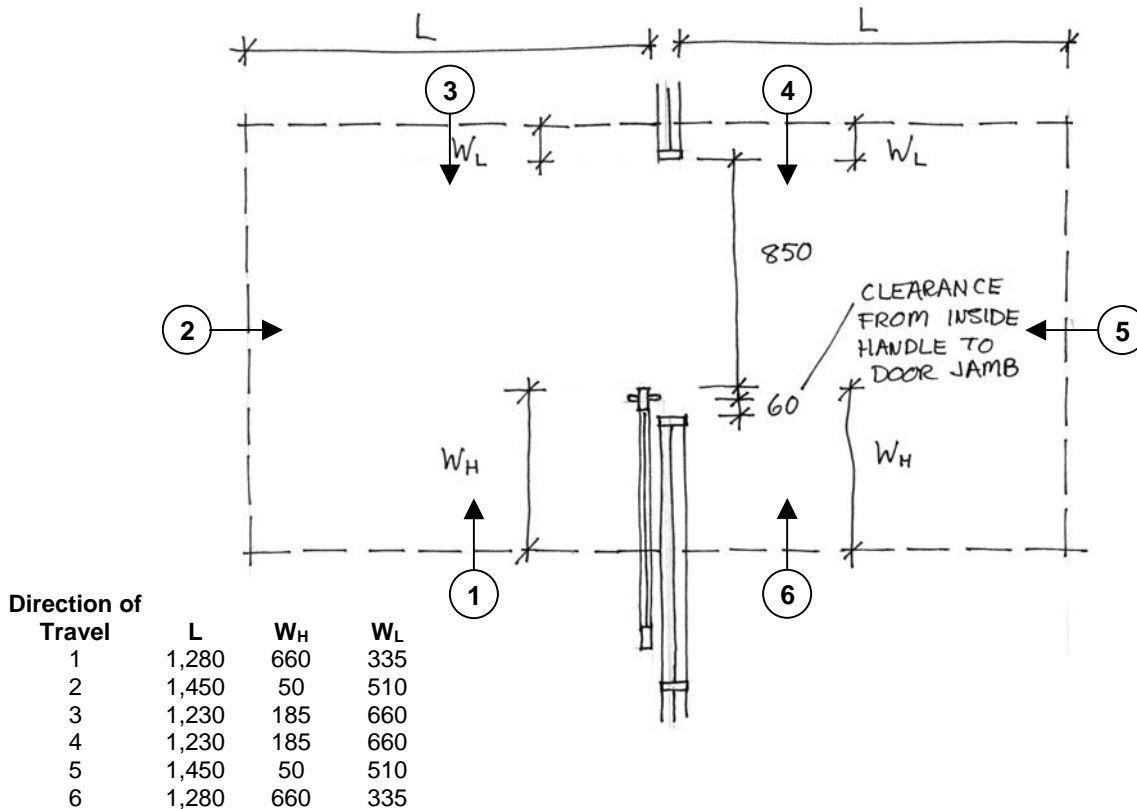


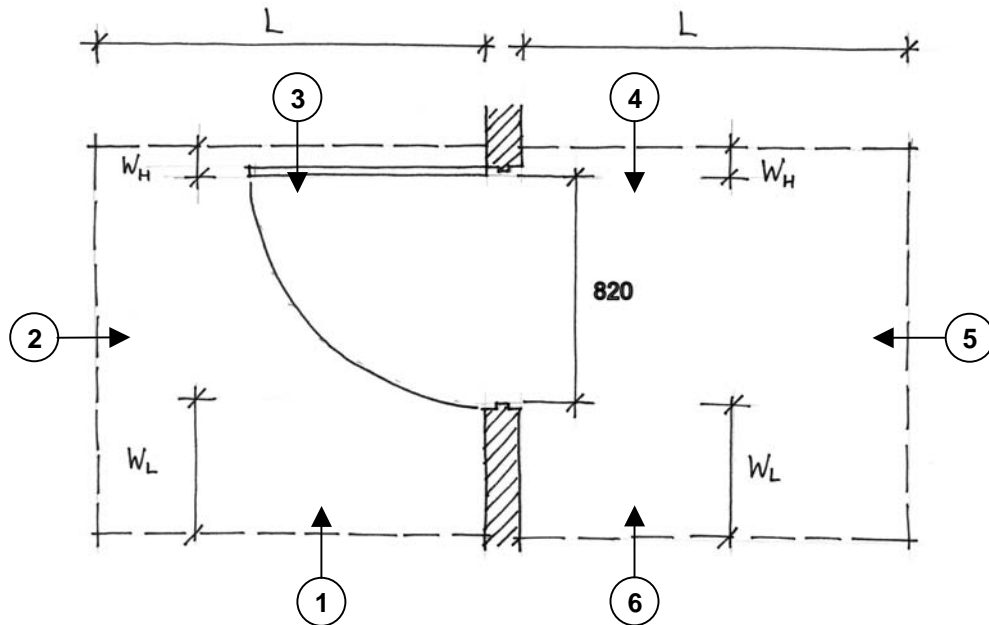
Figure 4: Building Entry Door Circulation

F. INTERIOR GENERAL

- Item 32** All internal doors minimum clear opening of 820mm.
- Item 33** Minimum internal corridor 1,000mm wide.
- Item 34** Circulation space to all internal doors from the internal corridor side to AS 1428.1 Figure 12 (hinged doors) or Figure 13 (sliding doors). Refer Figures 5 and 6.

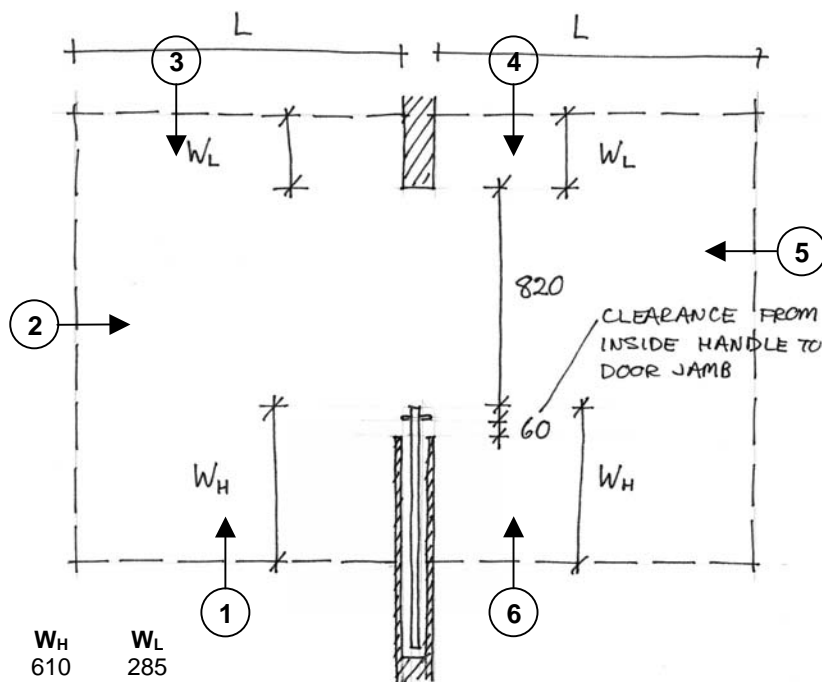
Note: This is an EM interpretation of AS 4299 Clause 4.3.7 and is open for discussion whether it should also apply to the inside of rooms as well. EM also suggests that any non-adaptable/accessible bathrooms need not meet this requirement, as there is one bathroom that is adaptable/accessible. However, it is desirable that the circulation area up the other bedroom meet AS1428.1.

Note: The circulation to the Main Bedroom door is to comply with AS 1428.2 (refer Section I and Figure 7).



Direction of Travel	L	W _L	W _H
1	1,540	830	110
2	1,350	470	110
3	1,530	830	610
4	1,140	210	610
5	1,350	470	0
6	1,180	610	160

Figure 5: Hinged Internal Door Circulation



Direction of Travel	L	W _H	W _L
1	1,180	610	285
2	1,350	0	470
3	1,150	150	610
4	1,150	150	610
5	1,350	0	470
6	1,180	610	285

Figure 6: Sliding Internal Door Circulation

G. LIVING ROOM & DINING ROOM

Item 36 Minimum diameter 2,250mm circulation space.

H. KITCHEN

Item 42 Minimum 1,550mm in front of benches, cupboards and appliances.

Item 43 Refer Figures 5 and 6 for access into room (door and circulation).

Item 44 At least one 800mm long work surface.

Item 45 A work surface beside refrigerator on opening side.

Note: There is no minimum space specified. EM suggest 400mm is reasonable.

Item 53 A 800mm long work surface adjacent cook top and at the same level.

Item 54 A 800mm long work surface beside oven.

Note: An oven and cook top can be combined but it is not preferred. It is best to have oven shelves at height of bench. Combination of work surfaces in Items 51 – 54 is permitted. Space for microwave at a reachable height with bench space to the right hand side should also be provided.

I. MAIN BEDROOM

Item 62 Minimum requirements are illustrated in Figure 7. Any bed head space needs to be added. Bed side tables to be moveable so as not to intrude into the space.

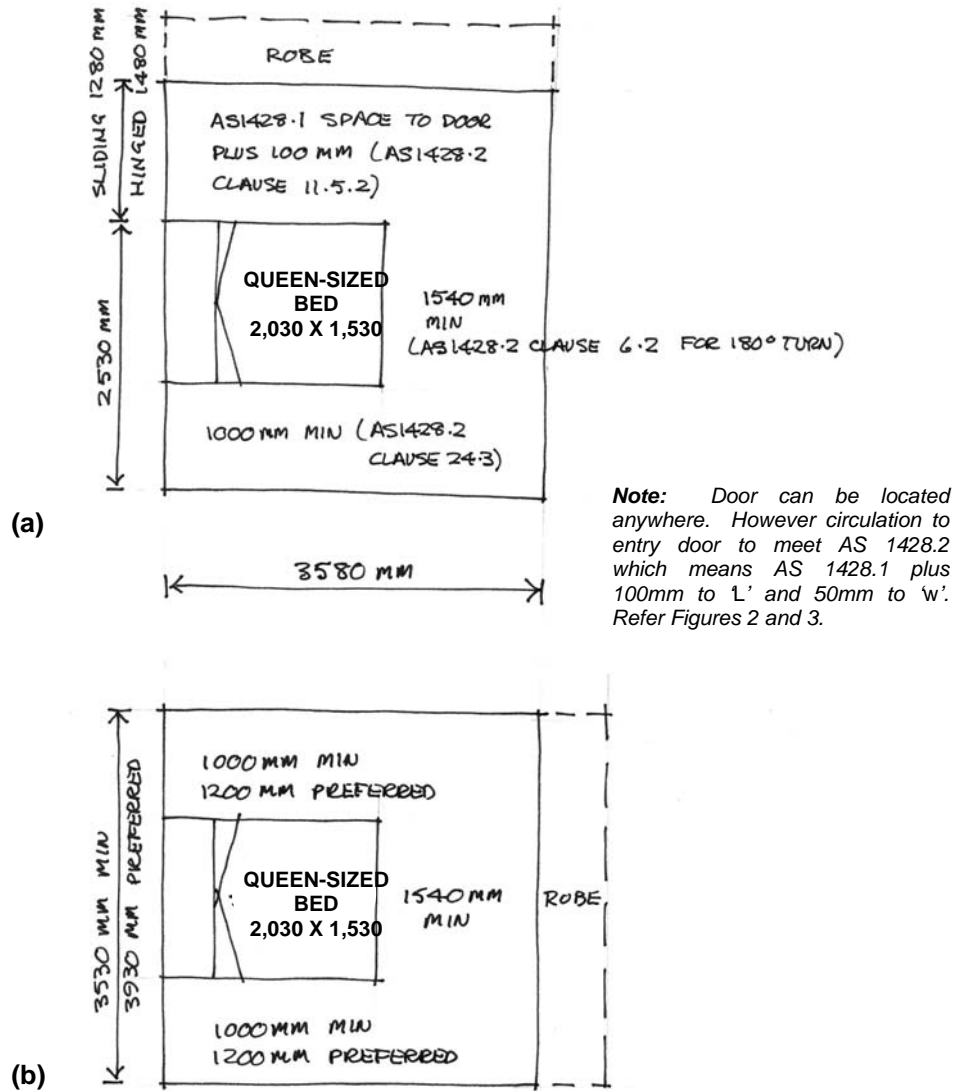


Figure 7: Main Bedroom Layout

J. BATHROOM

- Item 75 Location of fittings and space to meet AS 1428.1 Clause 10.
- Item 77 Shower, no hob and size to AS 1428.1 Figures 25 – 27 (refer to Figure 8 and 9 for some details).
- Item 88 Basin located to suit AS 1428.1 Figure 24.

K. TOILET

- Items 92 – 94 Location of fittings and space to meet AS 1428.1 Figures 18 – 22.

Location of pan to side wall set out to be 450 – 460mm to centreline and any waste through floor to permit later adaptation for an accessible pan.

NOTE: All plumbing wastes to be located to suit accessible layout which can include additional wastes in the preadapted form.

L. LAUNDRY

Item 98 Refer Figures 5 and 6 for access into room (door and circulation).

Item 99 A minimum 1,550mm in front of tub and appliances.

Item 100 Space for a front loading washing machine.

Note: It is preferable that the washing machine is not in a corner especially the openable side.

Taps at the side of washing machines and tubs is preferred.

Provision to permit raising the washing machine off the floor is preferred.

Item 102 An accessible path of travel complying with AS 1428.1 to clothes line (if provided) including no steps, door width, circulation space etc. Refer information under Item 3.

ITEMS FOR NOTING

Most DA submissions do not document all the details required for BA. In the DA documentation the following items can be noted (on drawings or by separate letter) that they shall be included in the BA documentation and shall be constructed to meet BCA and AS 4299 requirements.

Item 23 Threshold detail to indicate low level. AS 1428.1 requires a maximum 5mm step but does permit a threshold ramp of 1 in 8 over a maximum 450mm.

Item 27 Lever door handles between 900mm and 1,000mm height.

Item 38 Telephone adjacent GPO in living room. Power points to be between 600mm and 1,100mm above floor level.

Item 41 Living room to have a minimum 300 lux illumination.

Item 44 An adjustable kitchen bench can be added later.

Item 46 An adjustable kitchen sink can be installed initially or added later. Plumbing to permit this provided in pre-adapted state.

Item 47 Kitchen sink to be a maximum 150mm deep.

Note: EM interpretation is that if the kitchen sink is to be installed later then this requirement can also be installed later.

Item 48 Sink taps to be lever handles and/or mixer.

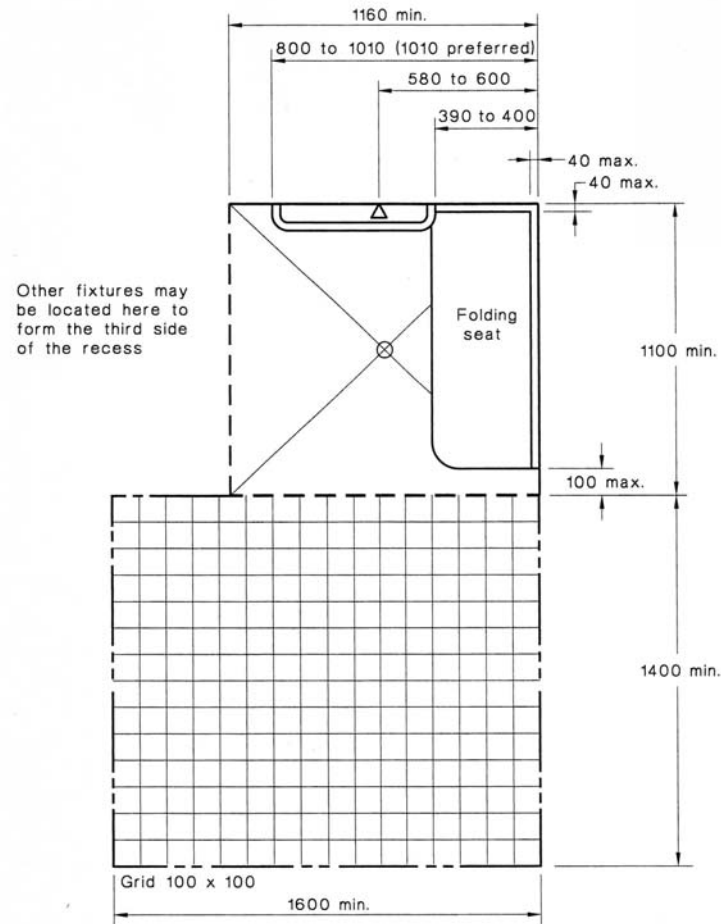
Note: EM interpretation is that if the kitchen sink is to be installed later then this requirement can also be installed later.

Item 49 Sink taps to be reachable (maximum 300mm back)

Note: EM interpretation is that if the kitchen sink is to be installed later then this requirement can also be installed later.

- Item 51** Cook tops to have front controls or side controls (maximum 300mm back) with raised cross bars.
- Item 52** Cook tops to include isolating switch.
- Item 54** Work surface beside oven is adjustable or can be added later.
- Item 59** One power point within 300mm of front of bench and maximum 1,100mm high.
- Item 60** Power point switch for refrigerator to be between 600mm and 1,100mm above floor level and maximum 300mm back from front of refrigerator.
- Item 61** Kitchen floor to be slip resistant to AS 4586 HB 197. A certificate of test and compliance will be required after construction.
- Item 75** Support for future grab rails to be built in at time of construction. Refer AS 4299 Figures 4.5 and 4.6 (Figures 10 and 11).
- Item 76** Bathroom floor slip resistance to AS 4586 HB 197. A certificate of test and compliance will be required after construction.
- Item 78** Shower (and bathroom) to be waterproofed to AS 3740 (2004) i.e. 1,500mm from shower rose. A certificate of compliance will be required after construction.
- Item 79** Recessed soap holder.

Note: EM suggests non-recessed as per AS 1428.1 is acceptable but recessed is preferred.



LEGEND:
 ———— Circulation space
 - - - - - Extent of shower area

(c) Third side provided by other fixtures

NOTES:

- 1 These circulation spaces may overlap any other circulation spaces in this Standard.
- 2 The folding seat is not part of the circulation space.
- 3 These dimensions shall apply also in mirror image configurations.
- 4 There shall be a minimum clearance of 1000 mm between the seat when folded and the wall opposite or any other fixture opposite.
- 5 Refer to Appendix E for further examples.

DIMENSIONS IN MILLIMETRES

FIGURE 26 (in part) SHOWER RECESSES AND CIRCULATION SPACES FOR THREE-SIDED SHOWER ENCLOSURES

Figure 8: AS 1428.1 Figure 26

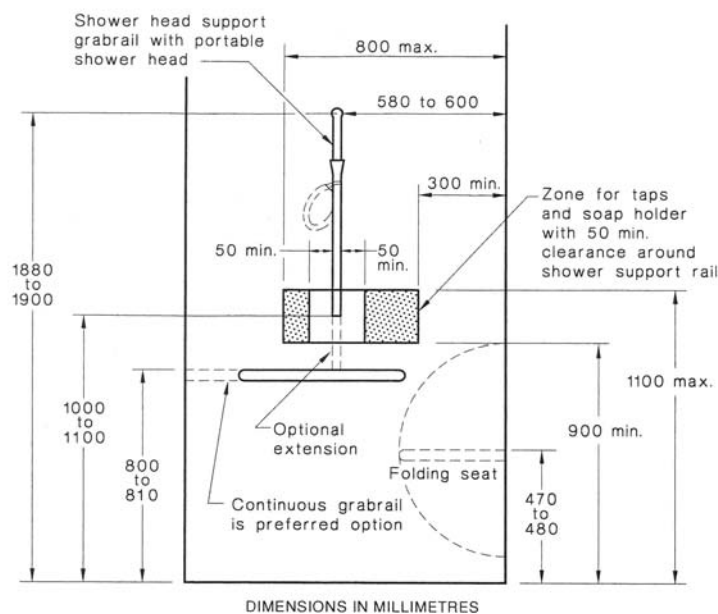
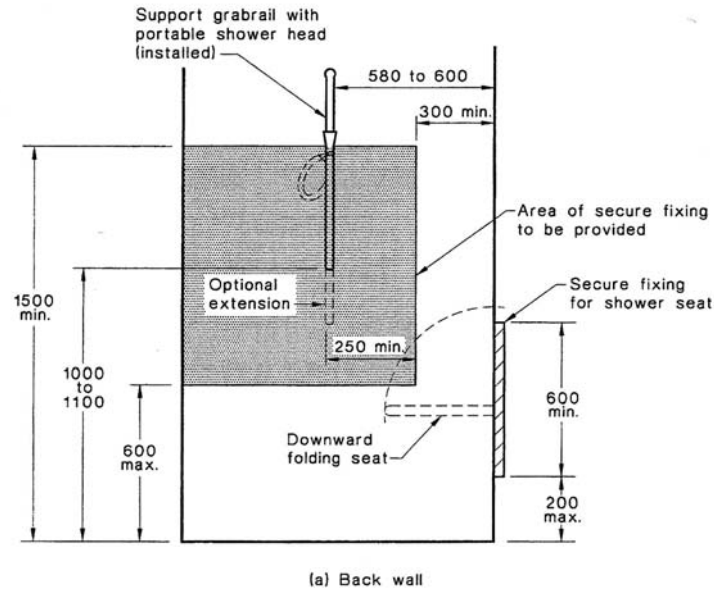


FIGURE 27 SHOWER RECESS FITTINGS

Figure 9: AS 1428.1-2001 Figure 27

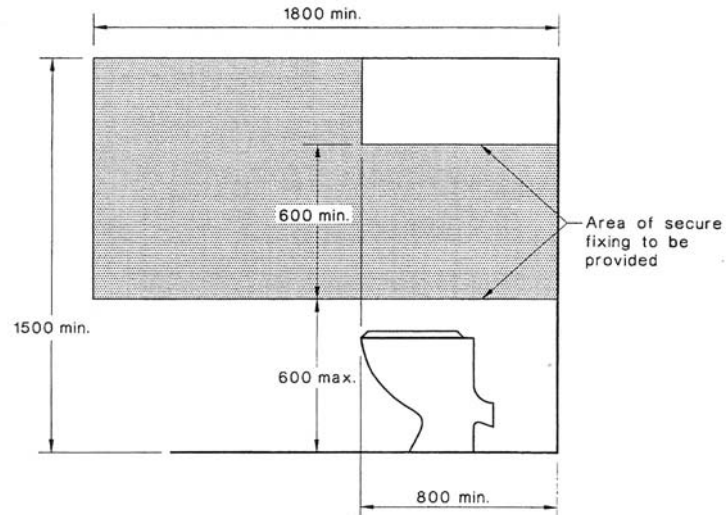
- Item 80** Shower taps to AS 1428.1 Figure 27.
- Item 82** Shower rose to AS 1428.1 Figure 27.
- Item 83** Grab rails in shower (refer Figure 9). Add in support for future seat and grab rails at time of construction (i.e. pre-adapted state) (refer Figure 10).
- Item 86** Lever taps.
- Item 90** Power point beside mirror at 900mm – 1,100mm above floor level.
- Item 95** Support for future grab rails to be built in at time of construction (i.e. pre-adapted state) (refer Figure 11).
- Item 96** Toilet floor to be slip resistant to AS 4568 HB 197. A certificate of test and compliance will be required after construction.
- Item 105** Double power point in laundry.
- Item 108** Laundry floor to be slip resistant to AS 4586 HB 197. A certificate of test and compliance will be required after construction.
- Item 110** Door hardware to be lever handles at 900mm – 1,100mm above floor level.



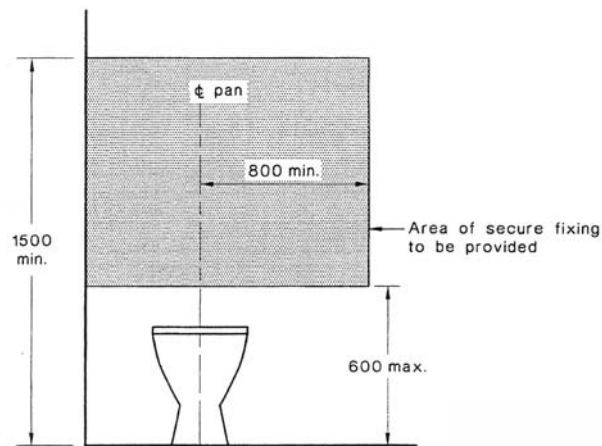
DIMENSIONS IN MILLIMETRES

FIGURE 4.6 REINFORCED AREAS FOR SUBSEQUENT INSTALLATION OF GRABRAILS IN SHOWER COMPARTMENTS

Figure 10: AS 4299 Figure 4.6



(a) Side view



(b) Front view

DIMENSIONS IN MILLIMETRES

FIGURE 4.5 REINFORCED AREAS FOR SUBSEQUENT
INSTALLATION OF GRABRAILS IN TOILETS

Figure 11: AS 4299 Figure 4.5

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