

**Summary of Amendments to the Design Manual: Barrier Free Access 2008
(October 2020)**

<i>Design Considerations and Recommended Design Requirements under Best Practice Section</i>	
1	Braille and tactile information for room numbers and fire exit maps at guest rooms in hotels, hostels and guesthouses (item 1)
2	Resting places for long corridors or passageways (items 2 and 3)
3	Automatic doors for all main entrances (item 4)
4	Unobstructed area adjacent to the door handle on the leading face of a single door (item 5)
5	Bevelled edge of door threshold (item 6)
6	Height of shower head (item 7)
7	Braille and tactile plan of toilet and changing room (item 8)
8	Tactile guide path for office building, hotel, guesthouse, hostel and bank (item 9)
9	Position of the Braille and tactile sign for the public toilet (item 10)
10	Increase in the illumination level for lift lobbies of upper floors, corridors, accessible paths and staircases (items 11 and 12)
11	Mirror in accessible lift car (item 13)

Amendments to the Design Manual: Barrier Free Access 2008

(October 2020)

Legends:

 Amended

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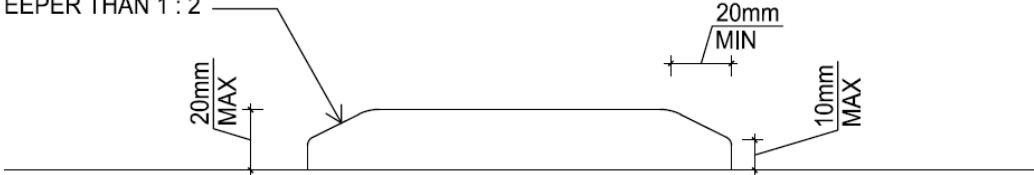
Design Considerations under Best Practice Section

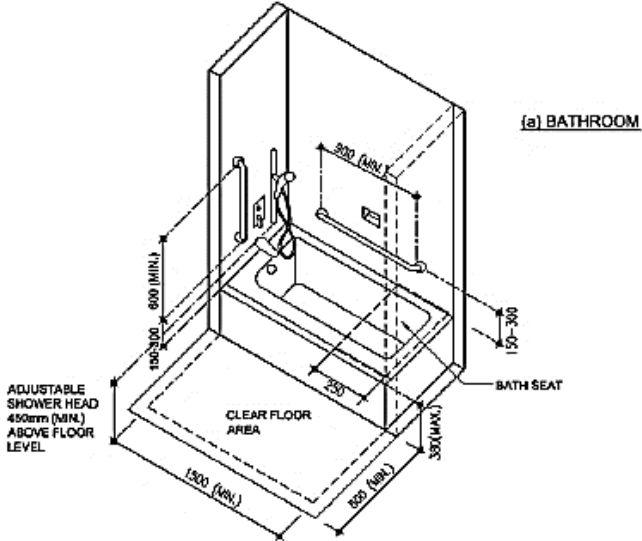
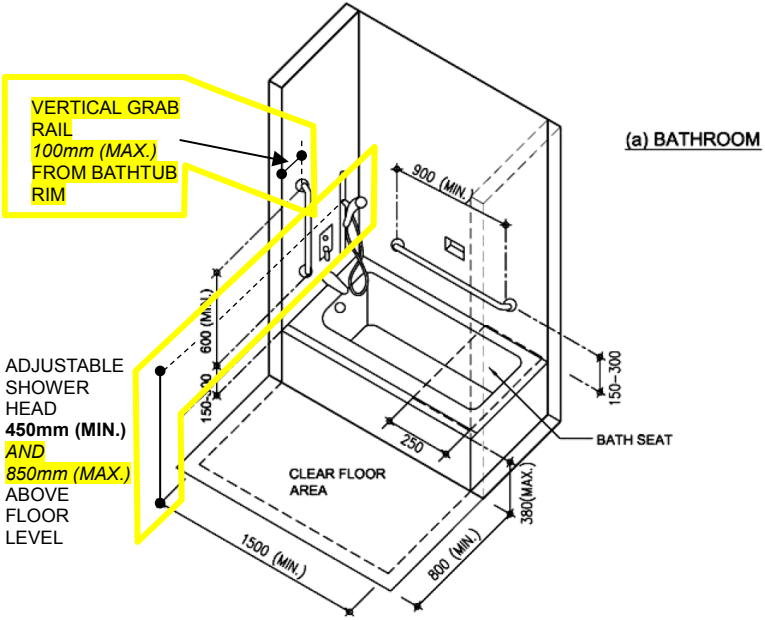
* Recommended Design Requirements under Best Practice Section

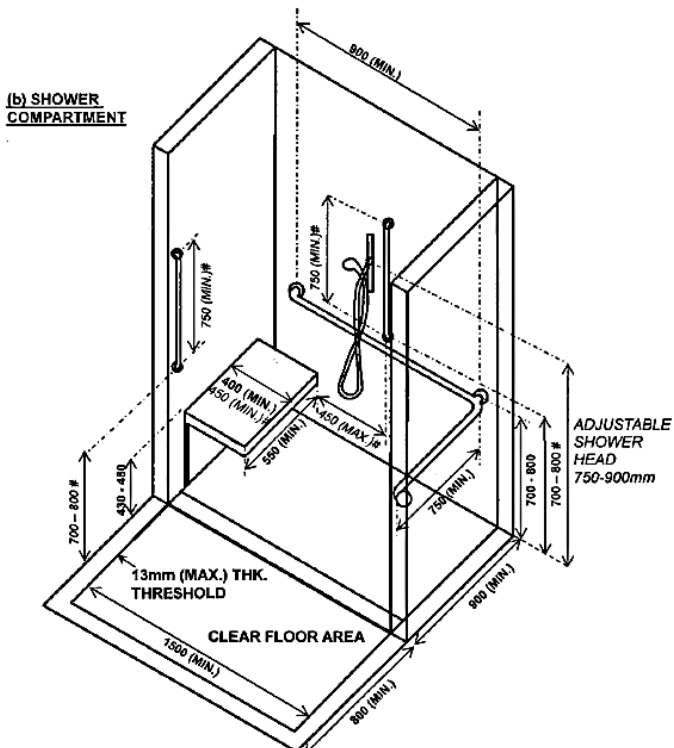
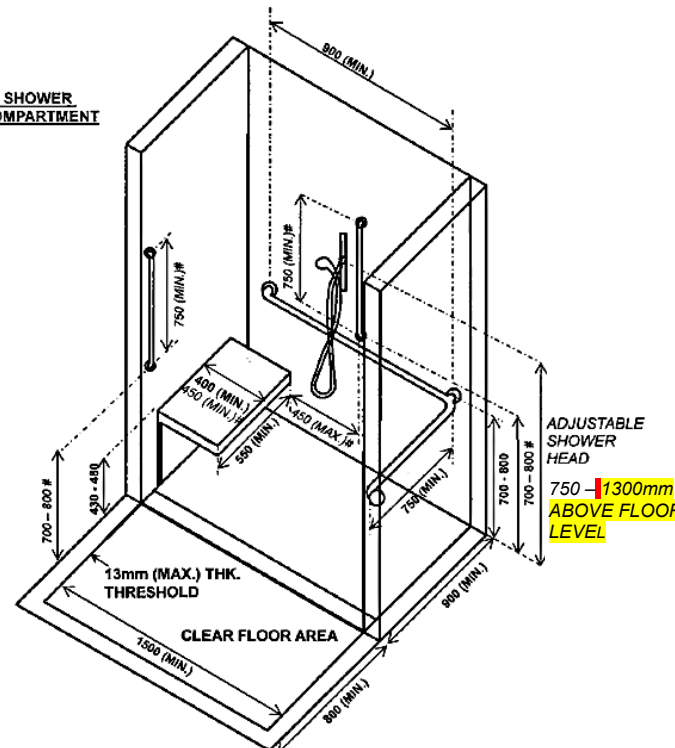
Item	2017 version	Amendments
1. Section B in Division 2 of Chapter 4*	(b) A minimum of two guest rooms (being not accessible guest rooms) for every 100 guest rooms and any part thereof should be provided with visual door bells installed at a prominent location and the function can be switched on or off conveniently by the guest.	<p>(b) For every 100 guest rooms and any part thereof, in addition to accessible guest rooms, the following types of guest rooms should be provided:</p> <p>(i) A minimum of two guest rooms with visual door bells installed at a prominent location and the function can be switched on or off conveniently by the guest; and</p> <p>(ii) A minimum of two guest rooms located near lift lobby with Braille and tactile fire exit maps at the back of guest room doors, and Braille and tactile information for main lamp switch controls.</p> <p>(c) Where planning allows, the accessible guest rooms required under paragraph 7(2) of Division 2 should be provided with the facilities in paragraph (b)(i) and (ii) above in full or in combination.</p> <p>(d) Where planning allows, the guest rooms in paragraph (b)(i) above should be provided with the facilities for accessible guest rooms in paragraph 7(2) of Division 2 and facilities in paragraph (b)(ii) above in full or in combination.</p> <p>(e) Where planning allows, the guest rooms in paragraph (b)(ii) above should be provided with the facilities for accessible guest rooms in paragraph 7(2) of Division 2 and facilities in paragraph (b)(i) above in full or in combination.</p> <p>(f) For floors with guest rooms provided under paragraph (b)(ii) above, Braille sign should be installed on the wall adjacent to the open side of each door leading to an exit staircase to indicate such information. The sign should be placed at 900 mm to 1500 mm above the finished floor level.</p>

Item	2008 version	Amendments
1. Section B in Division 2 of Chapter 4* (cont'd)		(g) A sign with guest room number in raised Arabic numerals/characters and Braille should be installed on the wall adjacent to the door lock of all guest rooms. The sign should be placed at 900 mm to 1500 mm above the finished floor level.
2. Section A in Division 9 of Chapter 4#		<p><i>To add paragraph (e) after paragraph (d) in Section A</i></p> <p>(e) Long corridors and passageways are difficult for the persons with locomotion impairment to negotiate. Therefore, adequate resting places with resting facilities should be provided therein. Such resting facilities should not reduce the statutory requirements on the clear width of access and manoeuvring space and should not cause obstruction to access, circulation and exit routes.</p>
3. Section B in Division 9 of Chapter 4*		<p><i>To add a heading and paragraph (j) after paragraph (i) in Section B</i></p> <p>Resting Places</p> <p>(j) Seats (including fold-down seats) or lean-on railings should be provided in recessed areas at maximum intervals of 50 m in:</p> <ul style="list-style-type: none"> (i) long corridors and passageways within transport stations, interchanges and passenger terminals; and (ii) public passages within a building connecting with transport stations, interchanges and passenger terminals.

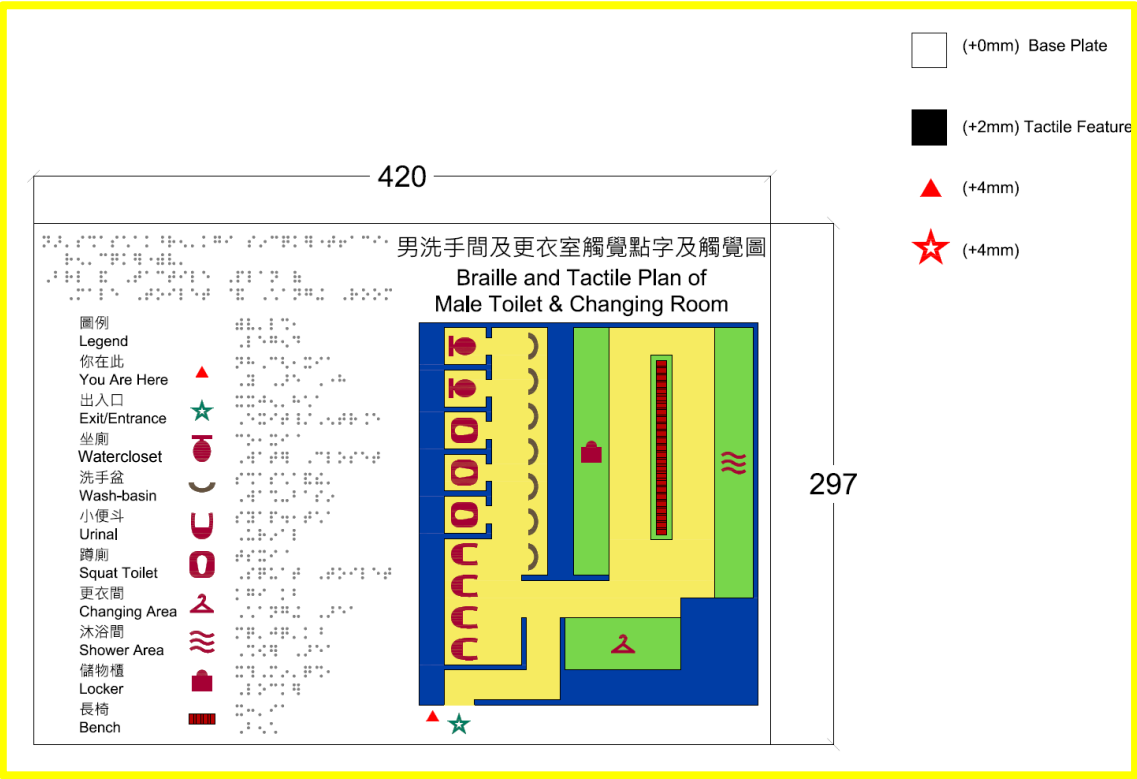
Item	2008 version	Amendments
4. Section B in Division 10 of Chapter 4*	<p>(d) Automatic door opener should be provided on the main entrance door of buildings not included in paragraph 45 and should:</p> <ul style="list-style-type: none"> (i) remain open for a minimum of 5 seconds; (ii) have a guardrail where it opens into a route of travel (see Figure 23); (iii) have a sign showing automatic door; and (iv) be located outside of the door swing. <p>Sliding automatic door with overhead sensor operating device or manual large button control should be provided.</p>	<p>(d) Other than a domestic building, automatic door openers should be provided on all entrance doors of a building which are commonly used by the public, and should:</p> <ul style="list-style-type: none"> (i) remain open for a minimum of 5 seconds; (ii) have a guardrail where it opens into a route of travel (see Figure 23); (iii) have a sign showing automatic door; and (iv) be located outside of the door swing. <p>Sliding automatic door with overhead sensor operating device or manual large button control should be provided.</p>
5. Section B in Division 10 of Chapter 4*		<p><i>To add a heading and paragraph (j) after paragraph (i) in Section B</i></p> <p>Unobstructed Area</p> <p>(j) An unobstructed area adjacent to the door handle on the leading face of a single door should not be less than 600 mm in width.</p>

Item	2008 version	Amendments
6. Section B in Division 10 of Chapter 4*		<p><i>To add a heading, paragraph (k) and Figure 23A after paragraph (j) in Section B</i></p> <p>Door Thresholds</p> <p>(k) Door threshold (see Figure 23A) should have a bevelled and round edge on each side at a gradient not steeper than 1:2.</p> <div style="border: 2px solid yellow; padding: 10px;">  </div> <p>Figure 23A – Example of Door Threshold</p>

Item	2008 version	Amendments
<p>7. Figure 27 in Division 12 of Chapter 4*</p>	 <p>(a) BATHROOM</p> <p>ADJUSTABLE SHOWER HEAD 450mm (MIN.) ABOVE FLOOR LEVEL</p> <p>CLEAR FLOOR AREA</p> <p>BATH SEAT</p>	 <p>(a) BATHROOM</p> <p>VERTICAL GRAB RAIL 100mm (MAX.) FROM BATHTUB RIM</p> <p>ADJUSTABLE SHOWER HEAD 450mm (MIN.) AND 850mm (MAX.) ABOVE FLOOR LEVEL</p> <p>CLEAR FLOOR AREA</p> <p>BATH SEAT</p>

Item	2017 version	Amendments
	 <p>(b) SHOWER COMPARTMENT</p> <p>900 (MIN.)</p> <p>750 (MIN.)#</p> <p>750 (MIN.)#</p> <p>700 - 800 #</p> <p>700 - 800 #</p> <p>ADJUSTABLE SHOWER HEAD 750-900mm</p> <p>750 (MAX.)#</p> <p>500 (MIN.)</p> <p>750 (MIN.)</p> <p>430 - 480</p> <p>700 - 800 #</p> <p>13mm (MAX.) THK. THRESHOLD</p> <p>CLEAR FLOOR AREA</p> <p>1500 (MIN.)</p> <p>800 (MIN.)</p> <p>800 (MIN.)</p> <p># VERTICAL GRAB RAILS AND SEAT DEPTH UNDER RECOMMENDED DESIGN REQUIREMENT</p> <p>* ALL DIMENSIONS ARE IN mm</p> <p>DIMENSIONS PRINTED IN BOLD FORM DENOTE OBLIGATORY DESIGN REQUIREMENTS</p> <p>DIMENSIONS PRINTED IN <i>ITALIC FORM</i> DENOTE RECOMMENDED DESIGN REQUIREMENTS</p> <p>Figure 27 - Examples of Bathroom and Shower Compartment</p>	 <p>(b) SHOWER COMPARTMENT</p> <p>900 (MIN.)</p> <p>750 (MIN.)#</p> <p>750 (MIN.)#</p> <p>700 - 800 #</p> <p>700 - 800 #</p> <p>ADJUSTABLE SHOWER HEAD 750-1300mm ABOVE FLOOR LEVEL</p> <p>750 (MAX.)#</p> <p>500 (MIN.)</p> <p>750 (MIN.)</p> <p>430 - 480</p> <p>700 - 800 #</p> <p>13mm (MAX.) THK. THRESHOLD</p> <p>CLEAR FLOOR AREA</p> <p>1500 (MIN.)</p> <p>800 (MIN.)</p> <p>800 (MIN.)</p> <p># VERTICAL GRAB RAILS AND SEAT DEPTH UNDER RECOMMENDED DESIGN REQUIREMENT</p> <p>* ALL DIMENSIONS ARE IN mm</p> <p>DIMENSIONS PRINTED IN BOLD FORM DENOTE OBLIGATORY DESIGN REQUIREMENTS</p> <p>DIMENSIONS PRINTED IN <i>ITALIC FORM</i> DENOTE RECOMMENDED DESIGN REQUIREMENTS</p> <p>Figure 27 - Examples of Bathroom and Shower Compartment</p>

Item	2019 version	Amendments
<p>8. Division 13 of Chapter 4##*</p>	<p>BEST PRACTICE SECTION</p> <p>A. Design Considerations</p> <p>Persons with visual impairment may have difficulty in identifying their lockers for public use.</p> <p>B. Recommended Design Requirements</p> <p>Each locker door in sports complex, public swimming pool complex or public areas should be provided with Braille cells and raised Arabic numerals/characters*.</p> <p>* The locker key holders should be provided with raised Arabic numerals/characters.</p>	<p>BEST PRACTICE SECTION</p> <p>A. Design Considerations</p> <p>Persons with visual impairment may have difficulty in identifying their locker for public use, and sanitary fitments in a public toilet or changing room.</p> <p>B. Recommended Design Requirements</p> <p>(a) Each locker door in a sports complex, public swimming pool complex or public area should be provided with the locker number in Braille and raised Arabic numerals/characters*.</p> <p>* The locker key holders should be provided with raised Arabic numerals/characters.</p> <p>(b) A Braille and tactile plan (see Figure 32A) should be provided for the toilets with five or more waterclosets (urinal in a public male toilet and changing room is regarded as a watercloset for this purpose) in a public toilet/changing room. The plan should be installed on the wall adjacent to the door of the public toilet/changing room, or their entrance if entrance door is not provided. The plan should be placed at 900 mm to 1500 mm above the finished floor level.</p>

Item	2019 version	Amendments
		 <p>The diagram shows a floor plan for a male toilet and changing room. It includes a legend with Braille and tactile symbols for various features: 'You Are Here' (red triangle), 'Exit/Entrance' (green star), 'Watercloset' (red circle), 'Wash-basin' (red crescent), 'Urinal' (red U-shape), 'Squat Toilet' (red O-shape), 'Changing Area' (red triangle with line), 'Shower Area' (red wavy lines), 'Locker' (red square with line), and 'Bench' (red rectangle). The plan also shows a row of waterclosets, a row of urinals, a row of squat toilets, a changing area with lockers, a shower area, and a bench. Dimensions 420 and 297 are indicated. A legend on the right specifies tactile feature heights: (+0mm) Base Plate, (+2mm) Tactile Feature, (+4mm) red triangle, and (+4mm) red star.</p> <p>Figure 32A – Example of Braille and Tactile Plan of Toilet and Changing Room</p>

Item	2008 version	Amendments
9. Section A in Division 14 of Chapter 4#		<p><i>To add paragraph (fa) after paragraph (f) in Section A</i></p> <p>(fa) For any part of a building used for the purposes as office, hotel, guesthouse, hostel or bank, a tactile guide path should be installed from the main entrance of the building to lift zone, the nearest accessible toilet, public information/service counter, Braille and tactile floor plan, and staircase.</p>
10. Section B in Division 14 of Chapter 4*		<p><i>To add paragraph (ja) after paragraph (j) in Section B</i></p> <p>(ja) The Braille and tactile sign for public toilet required under paragraph 68(1) and (2) in Division 13 should be installed on the wall adjacent to the open side of the toilet door or toilet entrance if toilet door is not provided.</p>
11. Section A in Division 16 of Chapter 4#		<p><i>To add paragraph (c) after paragraph (b) in Section A</i></p> <p>(c) To enhance the illumination level of the lift lobby of upper floors, corridors, accessible paths and staircases, additional lighting to be provided may be activated by sensors. The following factors should be considered in setting the duration of such sensors:</p> <ul style="list-style-type: none"> (i) length of the corridors and paths; and (ii) walking speed of the persons with visual impairment, other forms of physical infirmities, etc.

Item	2008 version	Amendments
12. Section B in Division 16 of Chapter 4*		<p><i>To add paragraph (aa) after paragraph (a) in Section B</i></p> <p>(aa) Lift lobby of upper floors, corridors, accessible paths and staircases should have an illumination level of not less than 120 lux measured at the finished floor level. Such enhanced illumination may be provided by additional lighting activated by sensors.</p>
13. Section B in Division 19 of Chapter 4*		<p><i>To add a heading and paragraph (i) after paragraph (h) in Section B</i></p> <p>Mirror in Accessible Lift Car</p> <p>(i) A non-breakable mirror or mirror-like surface should be provided inside an accessible lift car to allow visual feedback for wheelchair users when reversing backwards into the lift lobby. Such provision should have a clear width not less than 850 mm and its bottom and top edges should be not more than 300 mm and not less than 1800 mm above the floor of the lift car respectively.</p>