

standard  
**4.2**  
mandatory

Every **building** must be designed and **constructed** in such a way that:

- (a) in non-domestic **buildings**, safe, unassisted and convenient means of access is provided throughout the **building**;
- (b) in **residential buildings**, a proportion of the **rooms** intended to be used as bedrooms must be accessible to a wheelchair user;
- (c) in **domestic buildings**, safe and convenient means of access is provided within common areas and to each **dwelling**;
- (d) in **dwellings**, safe and convenient means of access is provided throughout the **dwelling**; and
- (e) in **dwellings**, unassisted means of access is provided to, and throughout, at least one level.

**Limitation:**

There is no requirement to provide access for a wheelchair user:

- (a) in a non-domestic **building** not served by a lift, to a **room**, intended to be used as a bedroom, that is not on an entrance **storey**; or
- (b) in a **domestic building** not served by a lift, within common areas and to each **dwelling**, other than on an entrance **storey**.

**4.2.0 Introduction**

Circulation areas within a **building** should allow occupants to move around freely and without difficulty, to the best of their ability. Lack of space can make movement around a **building** difficult for many people and hamper activities such as carrying or moving large items.

The design process should consider how the **building** can be used by as wide a range of people as possible, including use by a person in a wheelchair, though it is recognised that this may not be to the optimum standard that can be achieved within purpose-built dwellings.

Improvement to circulation within **dwellings** under this standard, together with the provision, on one level, of an enhanced **apartment**, and kitchen (standard 3.11) and accessible **sanitary accommodation** (standard 3.12) will assist in creating more sustainable homes.

Whilst the guidance to this standard reflects general good practice, certain issues remain outwith the scope of the building regulations. There are numerous publications offering additional guidance on accessibility and inclusive design, including those listed below:

- BS 8300: 2009 – ‘Design of buildings and their approaches to meet the needs of disabled people – code of practice’;
- Housing for Varying Needs, Parts 1 & 2 – Communities Scotland.

*Conversions*

In the case of conversions, as specified in regulation 4, the **building** as **converted** shall meet the requirements of this standard in so far as is **reasonably** practicable, and in no case be worse than before the **conversion** (regulation 12, schedule 6).

#### 4.2.1 Horizontal circulation in common areas of domestic buildings

The common areas of *domestic buildings* containing *flats* or maisonettes, though secured against unauthorised entry, remain in effect a public or shared area. As an enclosed space, it is important that provisions made on the approach to the *building* are maintained within these areas.

There should be level or ramped access within the common areas of a *domestic building*:

- from a common entrance to the entrance of any *dwelling* or communal facilities on the entrance *storey* and to any passenger lift; and
- where a passenger lift is installed, from the passenger lift to any *dwelling* and to any communal facilities on an upper storey.

Circulation routes within common areas should allow safe and convenient passage and provide space for manoeuvring at junctions and when passing through doorways. All corridors therefore should have a minimum width of at least 1.2 m.

To allow manoeuvring space for both people and furniture, routes should be widened locally, at changes of direction, junctions and at the landing of any lift, to accommodate, clear of any obstruction, a 1.5 m turning circle.

Obstructions

Other than on a wall opposite a doorway, or in the areas noted above, an obstruction such as a radiator may project up to 100 mm, reducing corridor width to not less than 1.1 m, over a maximum length of 900 mm.

Gently sloping surfaces

Within a building, unidentified gradients may disorient *building* users and the need for gently sloping surfaces on circulation routes should be considered carefully before use. Level rest points on gently sloping routes should be provided as recommended in clause 4.1.3. Where not extending across the full width of a *room* or corridor, guarding should be provided to any exposed edge of such an area as for a ramp *flight*, as noted in the guidance to standard 4.4.

#### 4.2.2 Floor surfaces in common areas of domestic buildings

Floor surfaces within common areas should be uniform, permit ease in manoeuvring and be of a material and finish that, when clean and dry, will provide a level of traction that will minimise the possibility of slipping.

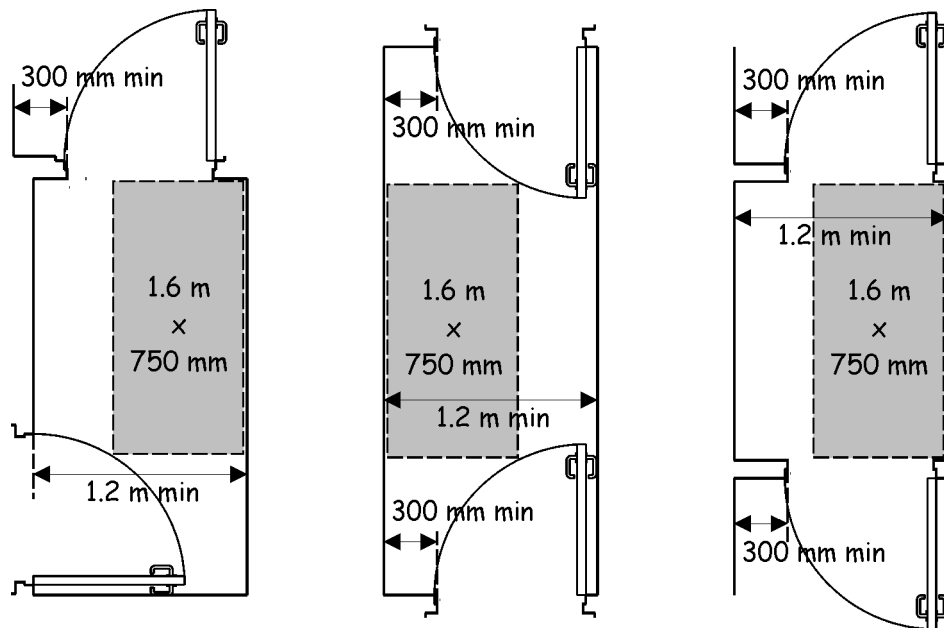
Where there is a change in the characteristics of materials on a circulation route, such as from a tile to carpet finish, transition should be level and, where *reasonably* practicable, differing surfaces should contrast visually to identify the change in material and reduce the potential for trips.

#### 4.2.3 Lobbies in common areas of domestic buildings

Use of a lobby can reduce the effect of external conditions on the interior of a *building* and may also contribute to fire safety. However where two sets of doors are in close proximity, this can present a hazard and a potential barrier to access.

Any lobby at the entrance to or within the common areas of a *domestic building* should allow a person to pass through whilst remaining clear of the swing of doors. A rectangular area, outwith any door swing, of at least 1.6 m long by 750 mm wide will permit safe passage of, for example, a person in a wheelchair and a companion.

### Accessible lobby dimensions



Where either door can be secured by a locking device, a lobby should be not less than 1.5 m wide. This will permit a wheelchair or pram to be turned around should passage be denied.

#### 4.2.4 Doors within common areas of a domestic building

Doors within the common areas of a domestic *building* should present as little restriction to passage as practicable and be *constructed* in a manner that does not present a hazard or a potential barrier to access.

A door located within the common areas of a *domestic building* should:

- a. if fitted with a threshold, have an accessible threshold; and
- b. have a door leaf giving a clear opening width in accordance with the table below; and
- c. where across a circulation route or giving access to communal facilities, have a *glazed* vision panel in any opening leaf, as described in clause 4.1.8; and
- d. have a door leaf that, if fitted with a door closing device, be operable with an opening force of not more than 30 N (for first 30° of opening) and 22.5 N (for remainder of swing) when measured at the leading edge of the leaf; and
- e. if not a powered door, have an unobstructed space to the opening face of the door, next to the leading edge, of at least 300 mm.

### Width of doors

Minimum corridor width at door (mm)	Minimum clear opening width (mm) [1]
1500	800
1200	825 [2]
900 [3]	850 [2]

Notes:

1. The projection of any ironmongery that extends across the width of a door leaf, such as an emergency push bar to a fire exit or horizontal grab rail, should be subtracted when calculating the clear opening width.
2. The clear opening width may be 800 mm where a door is approached head-on.
3. A corridor width of less than 1.2 m should not be present within new *buildings* but may be found within some existing *buildings*.

A door should not open onto a circulation route in a manner that creates an obstruction, other than a door to a cupboard or duct enclosure that is normally locked in a closed position.

#### 4.2.5 Vertical circulation in common areas of domestic buildings

Stairs in common areas should be designed to be accessible to a person with reduced mobility, as described in guidance to standard 4.3. There should be an accessible stair between each level of a *building*.

Level access, or access by a stair or ramp device should be provided to any storey, or part of a *storey*. However it is recognised that it may not be necessary or, in some cases, *reasonably practicable* to provide full access to all parts of a *building*. Consequently, such access need not be provided to any *storey*, or part of a *storey*:

- containing only fixed plant or machinery, the only normal visits to which are intermittent, for inspection or maintenance purposes; or
- where access is restricted to suitably trained persons for health and safety reasons, such as to walkways giving access only to machinery or to catwalks and working platforms, reached by industrial ladder.

#### Passenger lifts

Installation of a passenger lift will allow all *dwelling*s on upper *storeys* to be reached from a common entrance level. However it is recognised that it may not always be *reasonably practicable* to provide lift access within all *domestic* buildings.

Therefore, a *building* containing *flats* or *maisonettes* may be constructed without a passenger lift where not more than 4 *storeys* in height and where there is no *dwelling* with a principal living level at more than 10 m above either a common entrance level or the level of the lowest storey.

In any *building* above this height, or where there are communal facilities on a level other than a common entrance level, there should be a means of unassisted access. This should serve each level of the *building* that contains a common entrance, an entrance to a *dwelling* or communal facilities. Unassisted access between *storeys* should be by passenger lift, with the installation meeting the recommendations of BS EN 81-70: 2003.

Any passenger lift should be designed and installed to include the following:

- a. a clear landing at least 1.5 m x 1.5 m in front of any lift entrance door; and
- b. automatic lift door(s), with a clear opening width of at least 800 mm, fitted with sensors that will prevent injury from contact with closing doors; and
- c. a lift car at least 1.1 m wide by 1.4 m deep; and
- d. within the overall dimensions of the lift car, a horizontal handrail, of a size and section that is easily gripped, 900 mm above the floor on each wall not containing a door; and
- e. within a lift car not offering through passage, a mirror on the wall facing the doors, above handrail height, to assist a wheelchair user if reversing out; and
- f. within the lift car, tactile *storey* selector buttons and, in a lift serving more than 2 storeys, visual and voice indicators of the *storey* reached; and
- g. controls on each level served, between 900 mm and 1.1 m above the landing, and within the lift car on a side wall between 900 mm and 1.1 m above the car floor and at least 400 mm from any corner; and
- h. on the landing of each level served, tactile call buttons and visual and tactile indication of the *storey* level; and
- i. lift doors, handrails and controls that contrast visually with surrounding surfaces; and
- j. a signalling system which gives notification that the lift is answering a landing call; and
- k. a system which permits adjustment of the dwell time after which the lift doors close, once fully opened, to suit the level of use; and
- l. a means of two way communication, operable by a person with a hearing impairment, that allows contact with the lift if an alarm is activated, together with visual indicators that an alarm has been sounded and received.

#### **4.2.6 Accessibility within a storey of a dwelling**

To ensure facilities within a *dwelling* can be reached and used by occupants, each *storey* within a *dwelling* should be designed to be accessible. There should be safe and convenient access to and throughout each *storey* other than to a level which comprises solely of storage and/or such accommodation as may be accessed via a 600 mm wide stair.

Each accessible level or *storey* within a *dwelling* should have:

- a. corridors with an unobstructed width of at least 900 mm wide. This may be reduced to 800 mm over a maximum length of 900 mm by permanent obstructions, such as radiators, except on a wall opposite a doorway; and
- b. corridors that are large enough to accommodate an unobstructed area of 1.1 m by 800 mm which, where a door being used opens into the corridor, is oriented in the direction of entry and is clear of the door swing; and
- c. doors with a minimum clear opening width in accordance with the following table to each room, including any apartment, *kitchen* or *sanitary* facility.

**Width of doors**

Minimum corridor width at door (mm)	Minimum clear opening width (mm)
1050	775
900	800 [1]

Notes:

1. The opening width may reduce to 775 mm where a door is approached head-on.

Principal living level

In addition, there should be unassisted access to the basic accommodation needed in any dwelling. The principal living level of a dwelling, normally also the entrance storey, should contain at least one enhanced *apartment* (see clause 3.11.2), a *kitchen* (see clause 3.11.3) and accessible *sanitary accommodation* (see clause 3.12.3). This accommodation should be either on one level or, if on different levels within a storey, accessible without a stepped change of level.

**4.2.7 Access between storeys in a dwelling**

Where a *dwelling* has accommodation on more than one level, the levels containing accommodation should be connected by a stair or ramp within the *dwelling* following the guidance given under standard 4.3.

However the guidance under standard 4.3 need not be applied to a fixed means of access leading only to a *storey* or level containing storage, though access to such a level must still meet standard 4.3 and offer safe passage.

**4.2.8 Unassisted access between storeys in a dwelling**

Not everyone can use stairs unassisted. This may mean that the upper levels of a *dwelling* are not accessible to some occupants. Guidance elsewhere considers situations where occupants, incapacitated for a short period of time, might live within one storey. However this is not generally appropriate for longer term illness or infirmity, where a more permanent, inclusive, solution is required.

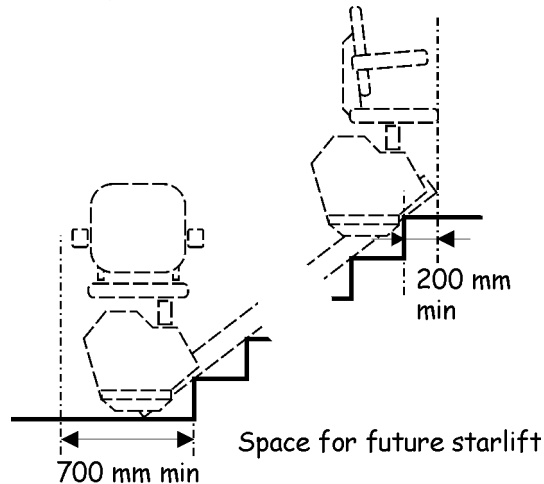
Provision should be made for future installation of a means of unassisted access, both within a *storey* and between storeys.

Future installation of a stairlift

To allow for future installation of a stair lift, any stair giving access to a principal living level or to accommodation greater than may be accessed via a 600 mm wide stair (see clause 4.3.3) should:

- have an area of wall not less than 700 mm in length, or an equivalent space, adjacent to the bottom riser of a stair and clear of any obstruction, fitting or doorway, to allow for parking of a stairlift at rest position. This space should be not less than 400 mm in depth; and
- have a similar area of not less than 200 mm in length, on the same side of the flight, at landing level adjacent to the top nosing of the stair, to assist in transfer at the upper level, allowing for projection of a stair lift track.

#### Future provision for unassisted access



#### 4.2.9 Split level storeys

Any change of level within a *storey* should not compromise access to facilities within the principal living level of a dwelling.

A *storey* may be split level provided a stepped change of level does not divide the accommodation forming the principal living level of a *dwelling* (see clause 4.2.6). In addition, if a stepped change of level is proposed on an entrance *storey* containing the principal living level, the route from the accessible entrance of the *dwelling* to the accommodation forming the principal living level should be without a stepped change of level.

#### 4.2.10 Dwellings with limited entrance storey accommodation

Where a dwelling, such as a townhouse or upper villa flat, contains no, or only limited, accommodation on the entrance storey, this can make access to the basic facilities within the *dwelling* more difficult for many people.

Where the entrance *storey* of a *dwelling* is not also the principal living level, the first *storey* above or below entrance *storey* which contains an enhanced *apartment*, *kitchen* and accessible *sanitary accommodation* is considered to be the principal living level.

Where there is not level or ramped access from the accessible entrance of a *dwelling* to the principal living level, the principal living level should be made accessible to as wide a range of occupants as possible and, accordingly:

- a. a stair, from an accessible entrance to the principal living level, should follow the guidance on rise, going and pitch for 'any other stair' given in clause 4.3.2; and
- b. provision for installation of a stairlift should be made as described in clause 4.2.8; and
- c. entrance level accommodation should contain an area of at least 800 mm wide by 1.1 m long that would permit storage of a wheelchair or pram. This should be outwith the minimum corridor width noted in clause 4.2.6 and clear of any door way, door swing, stair landing or space identified for a future stairlift installation.

Where the entrance level of such a *dwelling* contains 2 or more apartments, there should also be an accessible *toilet* on the entrance level in accordance with the guidance in clause 3.12.3. This is in addition to accessible *sanitary facilities* on the principal living level. There should be level or ramped access from the accessible entrance of the dwelling to this accessible *toilet* and at least 1 of the *apartments* on the entrance storey.

#### **4.2.11 Alterations and extensions**

Where accommodation within a *dwelling* meets the recommendations in clauses 4.2.6 to 4.2.10, any *works* to the *dwelling* should maintain compliance.

Altering an existing *dwelling*

Where alteration of a *building* includes *work* to, or provision of, a new circulation area, guidance should be followed as far as is *reasonably practicable*. This recognises that physical constraints within an existing *building* may mean compliance with space provision is not always possible.

Consequential alterations

Where existing accommodation does not meet the provisions set out in guidance, it need not be altered to comply except for consequential work, needed to ensure compliance with another standard. An example would be where an accessible entrance has been relocated and alterations are required to circulation space to maintain accessibility within the building.