

# BUILDING REGULATIONS GUIDANCE NOTE NHBC BUILDING CONTROL

## ACCESS TO AND USE OF BUILDINGS - DWELLINGS

Parts M and K\* to the Building Regulations require that people, regardless of disability, age or gender are able to gain access to buildings and use their facilities, both as visitors and people who live or work in them. This guide is intended to provide practical advice to NHBC customers on how to achieve compliance with the functional requirements of the regulations and give further guidance on the options offered in the Approved Documents.

### ACCESS TO THE DWELLING

#### Objective

The objective of the access requirements in the building regulations are to provide reasonable provision within the plot boundary to allow a disabled person to gain access to the dwelling from the point of alighting from a vehicle positioned inside or outside the plot. In most circumstances it should be possible to do this with a level or ramped approach to the dwelling.

#### Access strategy

It is important to engage with NHBC building control as early as possible in the design process to ensure that the access strategy provides the best possible solution to all new dwellings on a development. On simple sites where compliant solutions can be easily incorporated, this can be achieved with an early discussion between NHBC Building Control and the builder or designer. On more challenging sites, it may be necessary for a more in-depth engagement with a written strategy and accompanying details showing the solutions to be incorporated.

#### Design considerations

It is acknowledged that the provision of access to a dwelling is often a matter of practicality and with careful, up-front planning, it should be possible to provide an accessible solution to the majority of dwellings. The key factor in providing suitable access is the difference in height of the finished floor level from the point of alighting from the vehicle. Ideally the difference should be minimal so as to allow access to the dwelling with least difficulty. Where this is not possible, the difference should be kept to a minimum.

The provisions for access to dwellings will normally apply from the point of access to the principal entrance. These are, in order of preference:

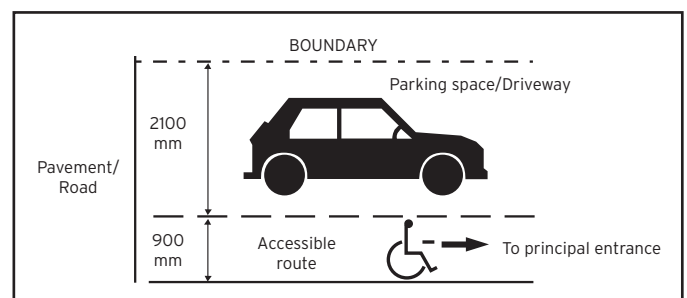
- level approach
- ramped approach
- stepped approach.

Provision of one of these will satisfy the building regulations.

If it is not possible to meet these provisions at the principal entrance it would be reasonable to apply them to a suitable alternative entrance.

#### Provisions for access to the dwelling

Where the accessible route to the dwelling uses the driveway, for example where the driveway provides visitor parking, this should be of sufficient width to enable someone to pass without being obstructed by a parked car (Diagram 1).



**Diagram 1** - Driveway as part of the approach, maintain 900mm clear access route

\* Part K refers to England only. In Wales the access provisions are all contained in Part M. The contents of this guidance note represent best practice and following it would be reasonable in showing compliance across England and Wales.

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Where no parking is provided, the point of access would be considered to be the plot boundary.

Whichever type of approach is adopted, careful consideration must be given to the surface specification. The key issue is whether the material used provides a surface that is firm and even. Loose or uneven surfaces such as gravel or cobbles would not be suitable.

An accessible approach is required from the point of access to the principal entrance. The principal entrance is best defined as the door most likely to be approached by a visitor to the home. The plot gradient (Diagram 2) will determine the type of provision that can be provided. It is measured from finished floor level to the point of access.

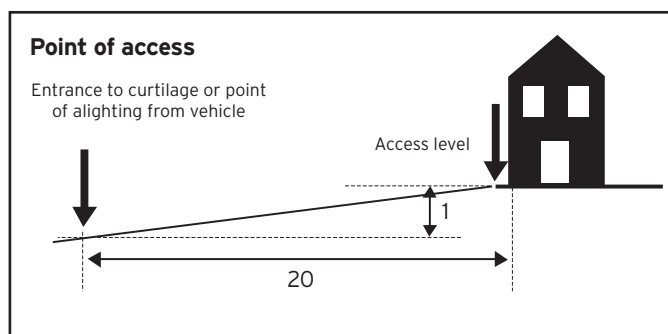
**Level approach** - the preferred solution is for a level approach with a gradient of 1 in 20 or shallower and provides the easiest method of showing compliance with the requirements of the building regulations. As an example a level approach can be achieved with an even gradient over three metres from the point of access to the principal entrance for a difference in floor levels of 150mm.

**Ramped approach** - If the route from the point of access towards the principal entrance has a plot gradient exceeding 1 in 20 but does not exceed 1 in 15, then a ramp may be provided in accordance with Diagram 3. Usually the ramp would run directly towards the principal entrance but if this cannot be accommodated it may also be possible to run the ramp parallel to the external wall of the dwelling (subject to any planning restrictions). If this is the case, suitable provisions should be made for the damp proofing arrangements for the external wall.

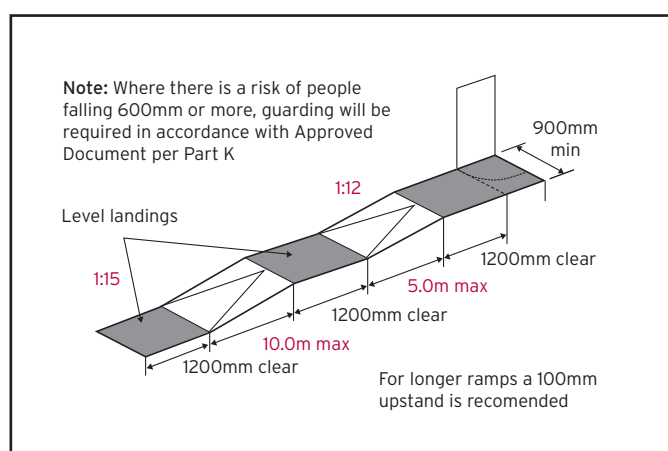
Where it is not possible to provide a ramp to the principal entrance in accordance with Diagram 3 either head on or by running the ramp parallel to the dwelling, Table 1 provides some alternative options which could be considered. These options provide for smaller landings and steeper but shorter ramps and may allow for a ramp as an option rather than a stepped approach. On plots where any of these options are proposed, this should always form part of the Access Strategy and be discussed as early as possible with NHBC Building Control.

**Stepped approach** - Where the plot gradient exceeds 1 in 15 a stepped approach will be acceptable. Where steps are unavoidable on the approach they must be designed to meet the needs of ambulant disabled people (Diagram 4):

- unobstructed clear width 900mm
- the rise of flights between landings is no greater than 1.8m
- top, bottom and intermediate landings that are a minimum 900mm long (the bottom landing can form part of a public footpath provided there are no obstructions)



**Diagram 2** - Plot gradient



**Diagram 3** - Ramped approach

TABLE OF ALTERNATIVE RAMP OPTIONS			
Distance from point of access	Landing size	Length of ramp (on plan)	Gradient
3000	Level access		1 in 20
2900	1100	1800	1 in 12
2800	1000	1800	1 in 12
2700	900	1800	1 in 12
2600	1100	1500	1 in 10
2500	1000	1500	1 in 10
2400	900	1500	1 in 10

**Table 1** - Alternative Ramp options assuming 150mm maximum rise into dwelling

- a suitable handrail to one side where the flight comprises three or more risers
- step profiles should be designed to avoid tripping hazards (for example, no contrasting nosings).

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## Dwellings accessed directly from the public highway

Where the principal entrance to a dwelling is accessed directly from the public highway (pavement) and the finished floor level is set no more than 150mm above the level of the public highway, the plot gradient will clearly exceed 1:15. In this case, it would be reasonable to consider if access arrangements can be provided to an alternative entrance such as a side or rear door. If this cannot be achieved, a single step to the principal entrance is acceptable provided the step is no more than 150mm (maximum rise for external steps). This step should be located at the door cill. An accessible threshold to the door must be provided. On plots where this solution is proposed this should always form part of the Access Strategy and be discussed as early as possible with NHBC Building Control.

### Access into the dwelling

The detailing around the entrance door is critical both in terms of providing accessibility and preventing the ingress of water.

Where a ramp or conventional stepped approach is used, a landing must be provided. In order to ensure water run-off, there needs to be a slope of between 1:60 and 1:40 away from the threshold. In all but the most sheltered locations, an adjacent drainage slot or channel is also needed to protect the entrance.

Improved performance can be achieved through specification of a proprietary threshold, many of which interlock with flexible brush sets fitted to the base of the door (Diagram 5).

Further reference should be made to the publication 'Accessible thresholds in new housing - Guidance for house builders and designers' published by The Stationery Office.

The entrance should have a minimum clear width of 775mm and an accessible threshold. The clear width is measured between the doorstop and the face of the open door; the weatherboard and door furniture can project into this width (Diagram 6).

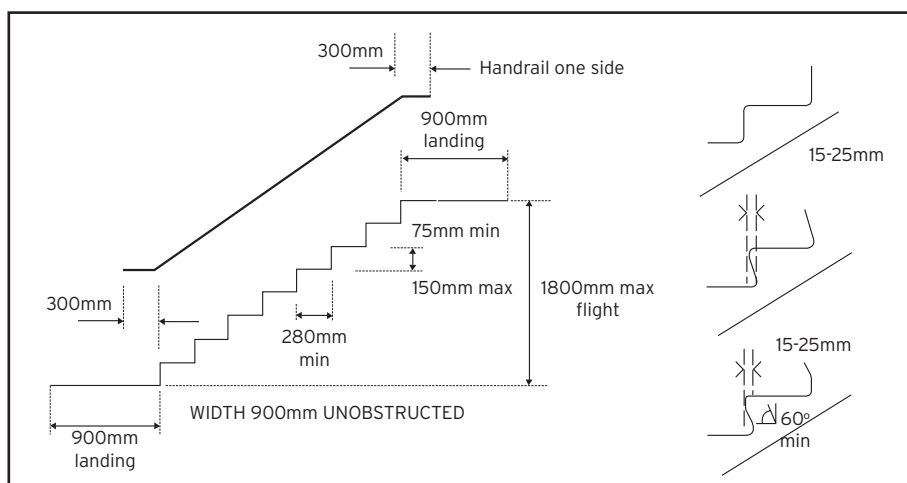


Diagram 4 - Stepped approach

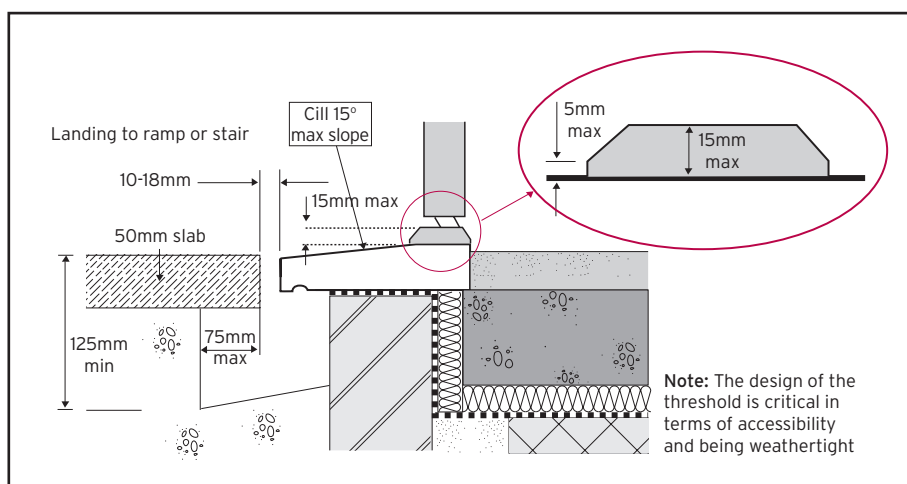


Diagram 5 - Accessible threshold

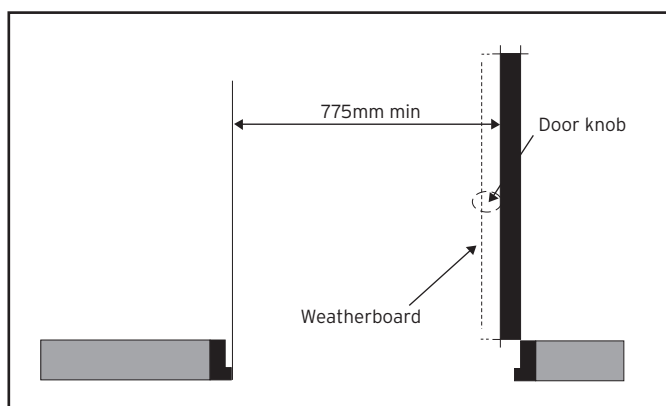


Diagram 6 - Entrance door

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## Flats over garages (FOGs)

Where flats are provided over garages (i.e. no habitable accommodation is provided at ground level) and are accessed from a single or shared staircase, a single step into the entrance lobby is acceptable provided it is no more than 150mm. The step should be provided at the door cill. An accessible threshold to the door should also be provided.

## Internal circulation

Inside the dwelling, reasonable access must be provided to habitable rooms and a room containing a WC. The WC will normally be on the same storey as the front door where there are habitable rooms at this level. Where there is no habitable accommodation on the entrance storey the WC can be located on either the entrance or principle storey.

Corridors and passageways in the entrance storey should be wide enough to allow circulation by wheelchair users (Diagram 7).

Short obstructions such as radiators are permitted in passageways, however a clear width of 750mm must be maintained. The area opposite a door opening should be kept free of all obstructions (Diagram 8). Table 2 provides clear openings achieved from different door leaf sizes.

TABLE OF MINIMUM DOOR LEAF DIMENSIONS			
	Clear opening required	Minimum door width dimension (imperial)	Minimum door width dimension (metric)
Internal	750mm	2'9"	826mm
Internal	775mm	2'9"	826mm
Internal	800mm	3'0"	926mm
Entrance	775mm	2'9"	906mm

**Note:** Clear width will be affected by door thickness and stop thickness

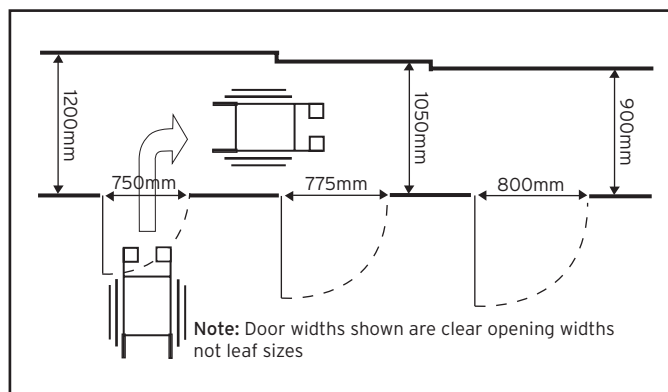
**Table 2** - Table of minimum door width dimensions

## Internal arrangements for houses on steep sites

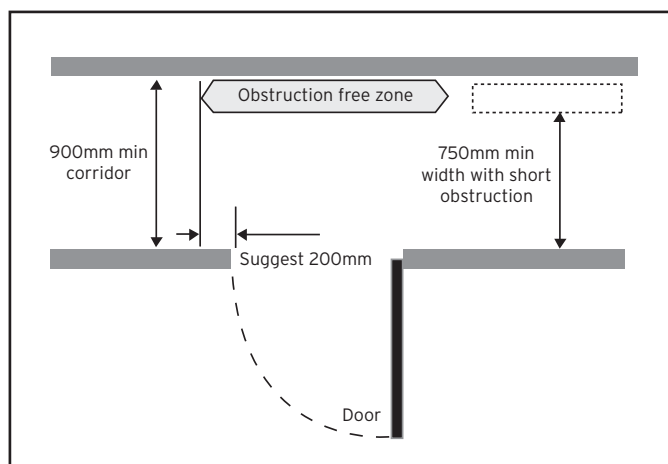
In exceptional circumstances, such as steeply sloping sites, steps can be provided within the entrance storey but they must be at least 900mm wide with a suitable handrail on one side and on both sides if the flight comprises more than three or more risers. Approved Document K provides for all other stairs within the dwelling.

## Controls and switches

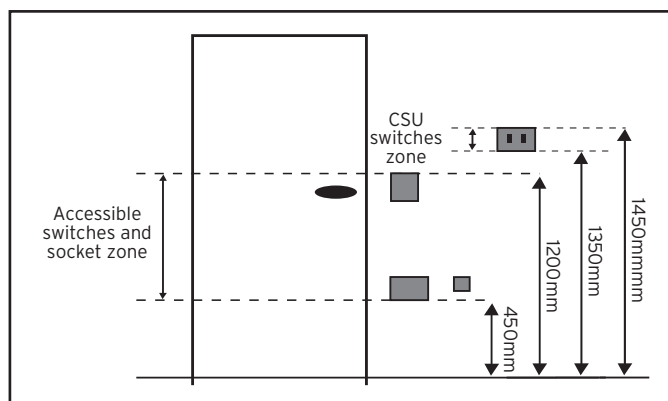
Switches and socket outlets should be located in an accessible zone between 450-1200mm above floor level in all habitable rooms regardless of where they are located within the dwelling. These accessible controls will include light switches,



**Diagram 7** - Door widths



**Diagram 8** - Obstruction free zone



**Diagram 9** - Controls and switches

power sockets, TV and telephone points as well as doorbells and entry phones. The general approach should be to provide controls, switches, locks, etc. that are used on a regular basis within the zone illustrated in Diagram 9. Consumer units (CSU) should be located so that the switches are between 1350mm and 1450mm from finished floor level (England only. Best practice in Wales).

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## WC provision

Reasonable provision for sanitary conveniences should be made on the level where daytime living occurs. Accessible WCs (including bathrooms where they contain the only WC, i.e. flats) must be provided with an outward opening door. The Approved Document recommends that a wheelchair should be able to approach to within 400mm of the WC pan and that the enclosure should provide sufficient space to manoeuvre.

The door to the WC should be wide enough to allow people with disabilities to enter and exit the compartment. See 'Internal circulation'.

## Frontal approach

Where the WC can be approached from the front, see (Diagram 10) the space necessary for the transfer has been illustrated using a circle with a 750mm diameter. Clearly the wash hand basin has the potential for obstructing both the approach of the wheelchair and the transfer from seat to pan. The clearances above and below the basin are therefore critical.

The basin should also not project out so far that it obstructs the person rising up out of the chair. Consideration should also be given to a clear area around the front of the WC pan to provide a minimum space for general use of the facility. The 650mm dimension indicated in Diagram 10 provides a minimum width for ambulant disabled approach without the need to twist and to enable stick/crutch users to access the pan. It is vital that this space is not further reduced by obstructions such as radiators. The above should be considered as absolute minimum dimensions. A preferred minimum compartment width of 1000mm would provide a more satisfactory arrangement.

## Lateral approach

The alternative of a lateral approach is also illustrated in the Approved Document, which suggests a preferred 250mm dimension from the door edge to the front of the WC pan. This dimension will enable a lateral transfer from chair to pan, usually by removal of the arm and foot rest of the chair (Diagram 11).

## Perpendicular approach

A perpendicular or even oblique approach would also be acceptable (Diagram 12). The space to manoeuvre should be achieved using the guidance for frontal approach (Diagram 10). If the WC is located beneath the stairs a practical headroom height will also need to be considered and 2m at the front of the pan is considered reasonable.

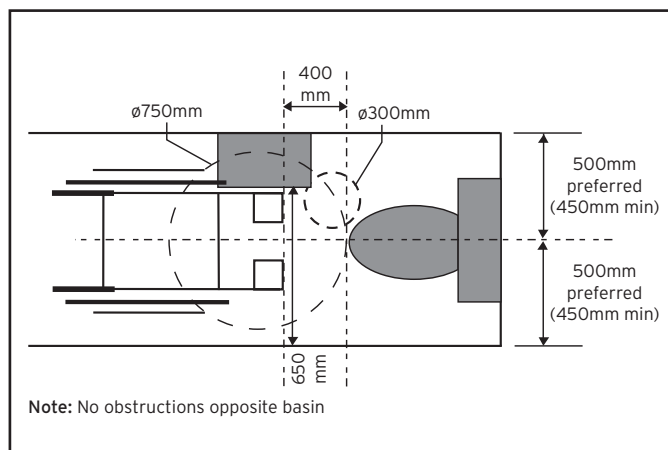


Diagram 10 - Frontal approach

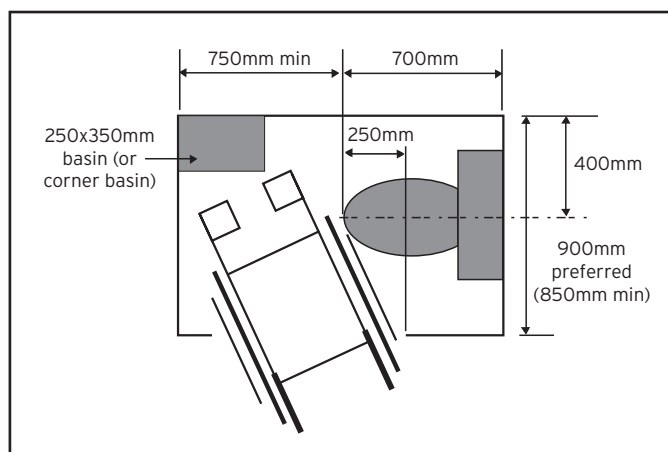


Diagram 11 - Lateral approach

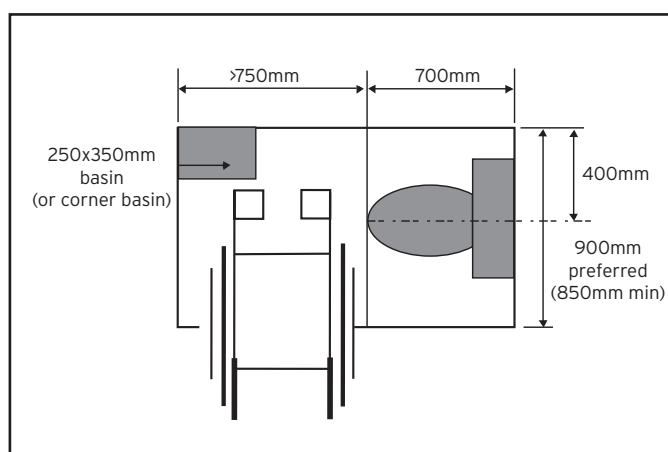


Diagram 12 - Perpendicular approach



# ACCESS TO AND USE OF BUILDINGS - DWELLINGS

## COMMON AREAS OF FLATS

### Lifts

A lift is the preferred method of access to flats above ground level. Where a lift is provided, it must be accessible (Diagram 13). Further guidance on lifts can be found in Approved Document M.

### Common staircase

Where it is not possible to provide a lift, the rise, going and handrails of stairs are all specified. Contrasting nosings are required on the stairs regardless of whether a lift is provided (Diagram 14):

- max rise 170mm, min going 250mm
- nosing profiles must avoid trip hazards and be contrasting

### Flats - internal circulation/wc provision

Internal circulation space requirements and the provisions for accessible WCs apply to flats at all levels regardless of whether lift access is provided.

## DEFINITIONS

### Accessible threshold

A threshold at the doorway which should have a maximum 15mm up-stand.

### Entrance storey

The storey that contains the principal entrance to the dwelling.

### Plot gradient

The gradient measured between the finished floor level of the dwelling and the point of access (Diagram 1).

### Point of access

The point at which a visitor would alight from a vehicle; may be within or outside the plot.

### Principal entrance

The entrance which a visitor unfamiliar with the dwelling would normally be expected to approach; also the common entrance to a block of flats.

### Principal storey

The storey nearest to the entrance storey that contains a habitable room (this will also be the entrance storey in most houses).

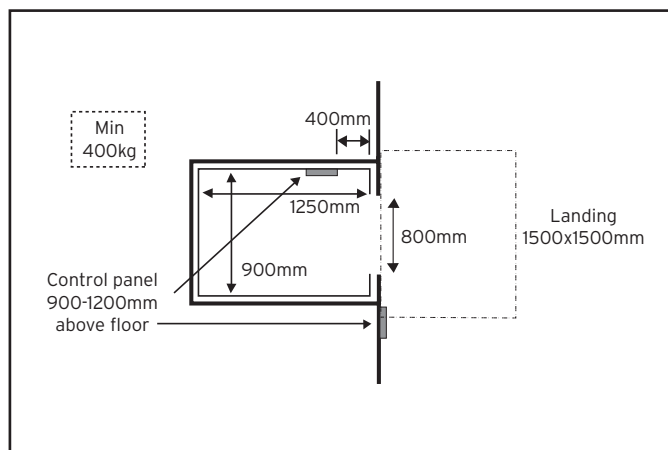


Diagram 13 - Lifts

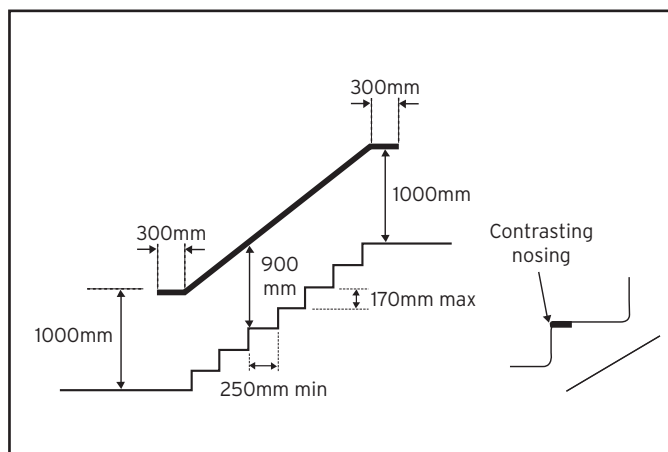


Diagram 14 - Common staircase

# ACCESS TO AND USE OF BUILDINGS - DWELLINGS

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## DESIGN CHECKLIST FOR ACCESS TO DWELLING

The following checklist may act as an aide memoire when considering how to provide reasonable access in accordance with the provisions of the building regulations.

### 1. Establish Point of Access

- a. Parking on site - taken from point of alighting from vehicle
- b. Parking off site or away from principal entrance - taken from point of entering the plot

### 2. Establish Plot gradient

- a. Measured from Point of Access to level of finished floor level at principal entrance to dwelling (e.g. 1 in 20 would be measured as 3m from the point of access to the edge of the dwelling for a 150mm difference in floor level.)

### 3. Establish best Access Solution

- a. Level Access - Plot gradient 1 in 20 or less
- b. Ramped Access - Plot gradient between 1 in 20 and 1 in 15
- c. Stepped Access - Plot gradient greater than 1 in 15

### 4. Cannot achieve best access solution

- a. Alternative routing for ramp or stairs
- b. Alternative ramp solutions
- c. Can an accessible solution be provided to an alternative entrance? (If so repeat the above process)
- d. For plots close to the public highway
  - i. Single step into the dwelling at the door cill
  - ii. Accessible threshold should still be provided

The diagrams are not intended to be working drawings, but rather illustrations of how the principles described in this guide can be put into practice.

For further advice, please contact an NHBC surveyor on 0844 633 1000 and ask for 'Building Control'.

Residential • Mixed use • Commercial

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