

Hart District Council Wheelchair Accessible Housing Guidance

Introduction

This guidance provides detailed information regarding the design requirements for wheelchair accessible homes provided within the Hart district. It has been developed in conjunction with an Occupational Therapist based on the Council's experience of developing wheelchair accessible housing within the district and in line with best practise.

Some of the elements outlined within the guidance are in line with requirements set out within Building Regulations Part M4(3), whilst other requirements have been included to meet the Hart Wheelchair Accessible Housing Standard.

This guidance is intended to be used by Hart District Council staff, Registered Providers, Occupational Therapists and other health care professionals as well as architects, landowners and developers to raise the standards of wheelchair accessible homes that are delivered within the district.

The guidance also looks to ensure that wheelchair accessible homes are provided in a consistent way and that accessible homes that are developed within the district meet the requirements of Hart District Council and its residents.

Key to Guidance

M4(3) Element required in line with Part M4(3) Building

Regulations.

HS Element required in line with Hart Wheelchair Accessible

Housing Standard (Hart Standard).

(Diagram x) Element referred to appears in stated diagram

Section 1. Access to the Home

- 1.1 There should be level access to the main entrance of the property and a level landing of at least 1500mm width x 1500mm depth outside the entrance. The level landing should be covered by a porch which comes out a minimum width and depth of 1200mm. M4(3) (Diagram 1)
- 1.2 Thresholds of external doors should be level for both access and egress purposes or, if raised have a total height of not more than 15mm, a minimum number of upstands and slopes and with any upstands higher than 5mm chamfered. M4(3) (Diagram 1)

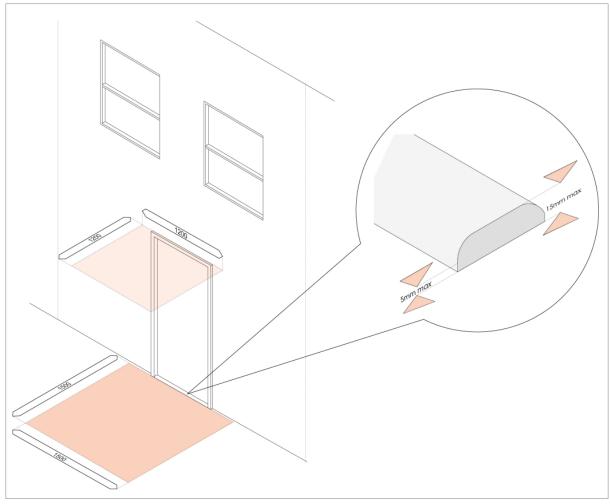


Diagram 1: External Access and Threshold

- 1.3 If an entry system is to be provided, controls need to be positioned 900mm 1000mm from floor level. Remote door release facility should also be provided in the main living space and the main bedroom. M4(3)
- 1.4 All entrances should be lit externally by fully diffused luminaires activated automatically by a dusk to dawn timer or by detecting motion. M4(3)
- 1.5 Accessible homes should not be located on sloping parts of the site, including any associated parking and garden areas. M4(3)
- 1.6 Any door latches, locks and handles should be easy to grip and use and fitted 850mm 1000mm above ground level. M4(3)
- 1.7 Where a resident is required to access their home via an internal communal area, the threshold of any entrance/exit points to the main building should provide a level threshold. M4(3)
- 1.8 In addition, any emergency door opening buttons sited in communal areas should be positioned at a height appropriate for a wheelchair user. HS

Section 2. Entrance within the Home

- 2.1 There will need to be a minimum of a 1500mm diameter turning circle inside the front door. M4(3) (Diagram 2)
- 2.2 The minimum clear width of the hallway should be 1050mm where approach to doorways is head on with no obstructions such as radiators, and where approach is at an angle, the minimum clear width should be 1200mm. M4(3)
- 2.3 See also Section 6 'Doors and Windows'.



Diagram 2: Internal Access and Doorways

Section 3. Internal Wheelchair Mobility Space

General Requirements

3.1 For standard wheelchairs to turn 360 degrees, the turning circle space required is 1500mm x 1500mm. M4(3) (Diagram 3)

The overall width of a standard wheelchair is 635mm when it is unoccupied. Additional space is needed at each side of the chair to enable the user to propel it manually and the length of wheelchairs is often longer as a result of the occupant's foot size. (*Diagram 3*)

There are many different types and sizes of manual and electric wheelchairs, some of which are modified and will take up greater space than described above, for example those with reclining backrests or elevating leg-rests.

- 3.2 Minimum floor space of living room, kitchen and dining area should meet the provisions of Part M4 (3) depending on number of bed spaces. M4(3)
- 3.3 The minimum clear access zone of 1500mm circulation space should be incorporated in front of and between, kitchen units and appliances in the kitchen area.M4(3)
- 3.4 See also Section 9 'Bathrooms, Shower Rooms and WCs' for details regarding relevant required clear zones.

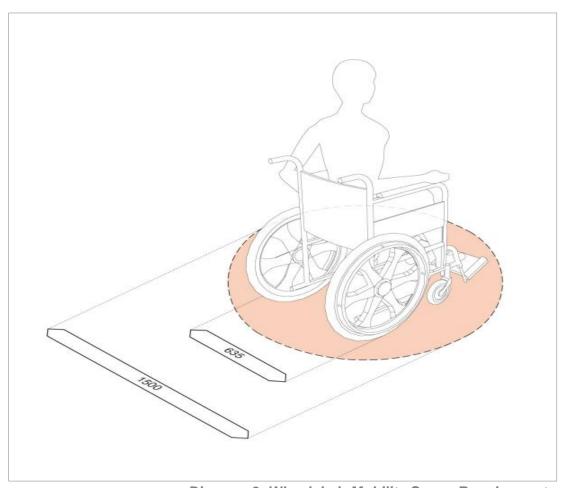


Diagram 3: Wheelchair Mobility Space Requirements

Section 4. Stairs and Through Floor Lifts

Stairs

- 4.1 Accessible houses should have straight staircases to allow for stairlifts to be fitted in the future if required.
 If a curved staircase is unavoidable, it should have full intermediate landing rather than winder treads which can be difficult for other occupants to use if a
 - rather than winder treads which can be difficult for other occupants to use if a stair lift is installed and make it expensive and difficult for a stair lift to be installed. HS (Diagram 4)
- 4.2 A power socket should be provided close to either the foot or the top of the stairs to allow for installation of a stairlift if required. M4(3) (Diagram 4)

Through Floor Lifts

4.3 The minimum aperture size for the liftway as stated in Part M of the Building Regulations is 1100mm in width x 1650mm in length internally - this would allow a lift to be installed of 790mm wide x 1200mm long. **However** - for accessible homes in Hart district a larger liftway aperture should be incorporated of 1160mm wide x 1730mm long which would allow a larger lift to be installed of 900mm wide x 1370mm long. The larger lift will accommodate a wider range of individuals with identified wheelchair needs and also allow futureproofing if those needs become more acute. HS (Diagram 4)

Additionally, a larger lift aperture may be required depending on the needs of the identified incoming resident. HS

NB: 'liftway' is defined in the Building Regulations Part M as a "Vertical route linking all floors of a dwelling accommodating (or capable of accommodating) a lift or lifting platform". The dimensions of the lift itself will therefore be smaller.

- 4.4 There should be a minimum clear turning circle of 1500mm in front of the lift door when open at 90 degrees on each floor which should be clear of the stairs. M4(3) (Diagram 4)
- 4.5 The through floor lift should run between the circulation areas of the property.

 M4(3)
- 4.6 The turning circle in front of the lift door should be clear of the landing at the top of the stairs. M4(3) (Diagram 4)

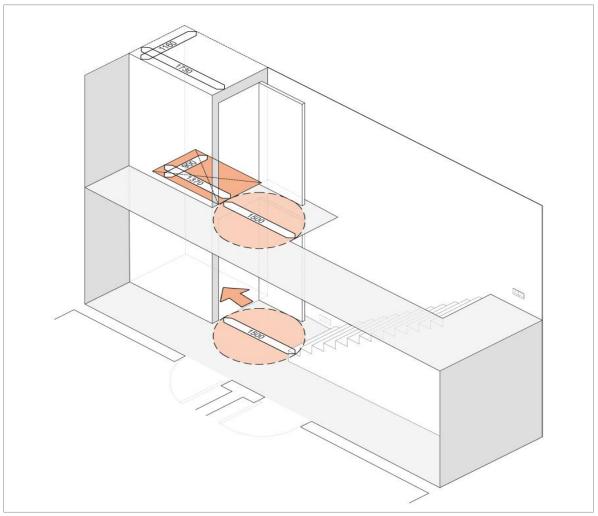


Diagram 4: Through Floor Lifts and Stairs

Section 5. Hoisting Requirements

Hoisting

- 5.1 Strengthened flooring would be required to support a mobile hoist. HS
- 5.2 Ceilings need to be capable of supporting a ceiling track hoist above the bed, bath and WC. M4(3)

Additionally, ceilings should be capable of supporting a ceiling track hoist in the lounge area also for potential wheelchair to sofa transfers. HS

The type of hoist provided is likely to be a 'H type' which is a three-tracking system hoist (two fixed tracks and one rolling track). HS

The ceiling should be suitable for fitting a ceiling track hoist capable of lifting a 200kg load. M4(3)

Section 6. Doors and Windows

Doors - General Requirements

- 6.1 All doors should be suitable for pulls or grab rails needed to assist opening and closing and for the subsequent fitting of other door furniture. HS
- 6.2 Lever handles should be used and positioned at a height of 850mm 1000mm above the floor. M4(3)
- 6.3 Doorways should provide a Clear Opening Width of minimum 850mm with 300mm nib on leading edge and 200mm nib on following edge. M4(3)
 - Doorstops should be provided where required to protect walls/other doors and space must be provided to manoeuvre the wheelchair past the door swing. M4(3)

Entrance Doors

- 6.4 Entrance doors should be 1000mm door set. There should be a minimum clear opening width of 850mm. M4(3)
 - **However** Hart requests entrance doors should have an opening width of 900mm. HS (*Diagram 2*)
- 6.5 There should be a clear space of a minimum of 300mm between the opening edge of the door and nearest obstruction to the side, e.g. a wall. M4(3) (Diagram 2)
- Patio doors if present, should either be single door units with a clear opening width of 850mm or if double leaf, one of those doors should have a clear opening width of 850mm. M4(3)
- 6.7 A fused spur is beneficial on the hinged side of the front door for fitting of a door opening system. M4(3)
- 6.8 There should be a gap of at least 380mm between the top of the door and the ceiling so a suitable door-opening device, for example an electronically operated door opener/closer, can be installed if required. HS
- 6.9 Doors must be suitable for use with electric door release to allow future fitting of door entry system. HS

Internal Doors

6.10 All internal doors must have a minimum opening width of 850mm. M4(3)

However - Hart requests that door openings should be a width of 900mm. HS (*Diagram 2*)

This width should be clear opening that is unobstructed by the internal architrave of the door frame or by other obstructions such as radiators. M4(3)

- 6.11 There should be a clear space of a minimum of 300mm between the opening edge of the door and nearest obstruction to the side, e.g. a wall. M4(3) (Diagram 2)
- 6.12 Where self-closing doors, such as fire doors in communal areas are absolutely necessary, they should have a delayed self-closing mechanism to allow time for the wheelchair to pass through the doorway before the door closes. HS
- 6.13 The spring on any self-closing door should not exceed 15N or should have an electrically powered hold-open device, which responds to a fire/smoke detection system. M4(3)
- 6.14 Rising butt hinges can assist wheelchair users to close the door behind them when a self-closing system is not installed. HS
- 6.15 Doors to the WC/cloakroom and any bathroom/shower rooms should open outwards. M4(3)

Windows

- 6.16 All windows should open outwards. HS
- 6.17 All windows should have internal locks. HS
- 6.18 All windows should have a handle reachable by a wheelchair user, within the range of 450mm to 1200mm with at least one window in the main living room being between 700mm and 1000mm above floor level, unless fitting with a remote opening device with controls within that height range. M4(3)
- 6.19 Powered window systems or window winders should be used for windows that are inconveniently positioned, such as above a sink. HS

Section 7. Flooring

Bathrooms and Shower Rooms

7.1 Flooring should be slip resistant specifically for use in a wet area. M4(3)

Hart recommends appropriate flooring to be used is Altro Aquarius or Polyflor Quattro to be coved 100mm up the walls. HS

WCs and Cloakrooms

7.2 Flooring should be vinyl as used in a high-risk area such as Altro Walkway unless there is provision for a shower area and then it should be vinyl suitable for use in a wet area such as Altro Aquarius. HS

Kitchens

7.3 Flooring in the kitchen should be slip resistant with reduced shine on the surface. HS

Bedrooms, Lounge and Hallways

7.4 Flooring should be hardwearing, slip resistant and easy to clean in hallways and living areas. The incoming resident's preference for carpet or hard flooring should be considered where at all possible. HS

Section 8. Kitchens

General Requirements

- 8.1 The minimum clear access zone of 1500mm circulation space should be incorporated in front of and between, kitchen units and appliances in the kitchen area. M4(3) (Diagram 5)
- 8.2 All sockets and controls should be positioned to allow easy access by wheelchair users. Where sockets/controls are mounted above a worktop, they should be sited no more than 100mm above the worktop. HS (Diagram 5)

Where sockets are mounted on a wall with no intervening worktop, they should be positioned no more than 900mm from floor level. M4(3) (Diagram 5)

Sockets should be mounted 700mm in from an inside corner and not positioned behind appliances. M4(3) (Diagram 5)

A minimum of 8 sockets should be provided in the kitchen (not including sockets for appliances) and integrated charging ports should be provided within sockets where possible. HS

8.3 Space and plumbing for a dishwasher should be provided. M4(3)

Worktops

- 8.4 Worktop heights should be adjustable, or a combination of low level/standard level height worktops provided depending on the needs of the incoming resident. The needs of the incoming household should be assessed prior to installation of the kitchen in order to achieve the correct heights for the identified applicant and their family. HS (Diagram 5)
 - Worktops accommodating a hob and/or sink should be fitted with a rise and fall mechanism so that worktop height can be adjusted. M4(3) (Diagram 5)
- 8.5 Worktops should be 600mm deep with a rounded front edge. They should be smooth, not textured, and light in colour for better visibility of items on the surface. HS (*Diagram 5*)
- 8.6 There should be worktop space next to the hob and oven to allow for saucepans to be taken on and off. This should be a minimum of 500mm wide. HS (Diagram 5)
- 8.7 The worktop must include a continuous section that incorporates a combined sink, and drainer unit and a hob. This section of worktop should be a minimum of 2600mm long*, should be height adjustable or if fixed should be capable of being refixed at alternative heights. There should be no fixed white goods under this section of worktop providing clear and continuous open leg space underneath. M4(3)/*HS (Diagram 5)

Ovens and Hobs - General Requirements

8.8 A separate hob and oven should be provided M4(3) (Diagram 5)

Hobs

- 8.9 The hob should be fitted flush with the work surface and be insulated underneath. HS
- 8.10 Controls of the hob need to be at the front and the hob should have a heat indicator if a ceramic type hob is provided. HS
- 8.11 Where possible, induction hobs should be provided which automatically switch off if a saucepan is not detected. Gas hobs should be avoided as they can cause higher risk of burns, spillages etc due to raised pan supports and flames. HS

8.12 Extractor hood fitted over the hob should have accessible controls that are no higher than 900mm from the floor. HS

Ovens

- 8.13 Oven should be sited within a housing unit, and there should be a pull-out shelf under the oven capable of supporting a hot dish which has been taken out of the oven. M4(3) (Diagram 5)
- 8.14 The oven should have a reversible side hung door or a hide and slide door, and not a hinged pull-down door. HS
- 8.15 The oven should be sited so that the centre line of oven is level with the adjacent work top. HS (Diagram 5)

Cupboards and Storage

- 8.16 Carousel units should be provided in all floor level corner cupboards to assist wheelchair users to reach stored items. M4(3) (Diagram 5)
 - Standard base units with drawers should be installed rather than cupboards as they are more easily accessible by all users. HS (Diagram 5)
- 8.17 Handles on all cupboards/drawers should be D shaped or T bar shaped for easy grip. HS (Diagram 5)
- 8.18 Consideration should be given to provide sufficient accessible storage for food as well as crockery, cutlery etc. HS
- 8.19 The base of wall cupboards should be 350mm from top of work surfaces. Wall cupboards also require pull down baskets, and with extended handles if over standard height work tops. HS (Diagram 5)

Sinks

- 8.20 Sink should be a shallow bowl 140mm-150mm deep and insulated underneath. M4(3)
- 8.21 A mixer tap with a swivel arm of an appropriate height to allow for easy fillings of items such as kettles, saucepans and other large items. Arms should be able to extend over drainer as well as sink. HS
- 8.22 The worktop adjacent to the bowl should be a minimum of 500mm wide. HS (Diagram 5)
- 8.23 Pipework under sinks should be either flexible or if fixed, easily adaptable to suit worktop heights between 750mm and 950mm above finished floor level. M4(3)

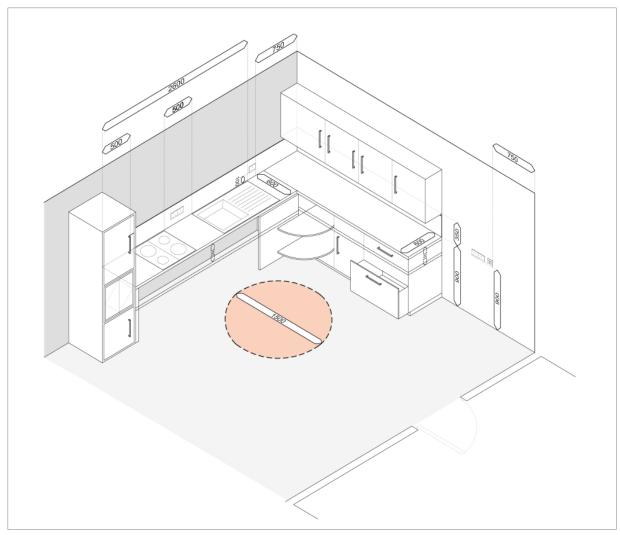


Diagram 5: Kitchen Requirements

Section 9. Bathrooms, Shower Rooms and WCs

- 9.1 In an accessible home the level access shower room should be sited on the same floor as the main bedroom. M4(3)
- 9.2 All walls, ducts and boxings within the bathroom should be capable of immediate firm fixing of adaptations such as grab rails, seats, etc. M4(3)
- 9.3 With dwellings of 5+ bed spaces, a level access shower should be provided with a bath as an addition if space allows. M4(3)

- Where a bath is provided, the Clear Access Zone should be 800mm (depth from side of bath) x 1700mm (length along bath). M4(3)
- 9.4 In accessible houses there should be a wheelchair accessible WC/cloakroom on the ground floor of the property. M4(3)
- 9.5 Doors to WC/cloakrooms and all bathroom/shower rooms should open outwards. M4(3) (Diagram 6)
- 9.6 Clear access zones for sanitary fittings as stated in Part M4(3) should be adhered to. A clear access zone can overlap with another clear access zone but should be free of sanitary fittings, radiators, towel rails, and services.
 M4(3)
- 9.7 Grab rails should be plastic fluted rails or plastic natural grip rails with a 32mm diameter and a minimum of 38mm from wall to rail clearance. HS

Rails may need to provide a colour contrast to the wall if there is a visual impairment.M4(3)

Fold down rails alongside the toilet may also be required and these should be approx. 765mm in length with a supporting leg and adjustable in height between 680mm and 880mm. **However** - rails should be provided following assessment by an Occupational Therapist of the needs of the wheelchair user who has been allocated the property. HS (*Diagram 6*)

Space will be required for fitting the back plate of these each side of the cistern. The required length and position of grab rails should be checked with the OT prior to installation. HS

Showers

- 9.8 A level access shower should be provided and constructed as a wet room with a minimum 1500mm diameter turning circle free from any obstacles. The turning circle should not overlap the level access shower area by more than 500mm. The shower should be laid with a 1:40 fall towards the gully outlet. M4(3) (Diagram 6)
- 9.9 Shower area should be no smaller than 1200mm x 1200mm. M4(3) (Diagram 6)
- 9.10 Shower controls should be positioned 750mm in from the corner on the wall which would be adjacent to the one suitable for a seat. Good practice indicates that shower controls should be 800mm 900mm from floor level.
 HS (Diagram 6)

- 9.11 Shower hose should be approx. 1750mm long on a 1000mm riser bar to allow for showering in a seated or standing position and for use by an ambulant occupant as well as a wheelchair user. The bar should be 750mm at its lowest point. HS (Diagram 6)
- 9.12 Shower controls should be fitted between 800mm and 900mm from the floor and should be positioned 750mm in from the corner on the wall adjacent to the seat. Controls should be touch sensitive or lever type. HS (Diagram 6)
- 9.13 Shower should be situated in a corner to allow for the fitting of a seat on one wall and the shower unit on the adjacent wall. M4(3) (Diagram 6)
- 9.14 A wall fixed shower seat with backrest should be provided. There should be at least a 500mm space between the wall and the centre of the seat. The seat should be adjustable in height, and height from floor to top of seat should be confirmed with OT prior to installation. HS (Diagram 6)
- 9.15 The Clear Access Zone for showers should be 500mm all around the shower unit. M4(3) (Diagram 6)

Basins

- 9.16 A wall hung basin should be provided to allow for a wheelchair user to access it. M4(3) (Diagram 6)
 - Basins with a wide flat rim and rounded edges which allows the user to place items and rest arms should be provided. HS
 - Single lever mixer taps should be provided. HS (Diagram 6)
- 9.17 The Clear Access Zone for basins should be 1700mm* from the back wall and 800mm wide. There should be a 1200mm space in front of the basin for straight wheelchair approach, with knee space underneath. Pipes/ducting should not obstruct the wheelchair footplates. M4(3)/*HS (Diagram 6)
 - Clear Access Zone requirements for basins situated in WC cloakrooms may differ depending on the location of the WC cloakroom within the dwelling relative to other bathroom facilities, and so Part M4(3) should be checked, and requirements adhered to accordingly.
- 9.18 The exact height of the basin should be agreed once the incoming resident has been identified and their requirements determined. HS
- 9.19 Where the incoming resident requires a rise and fall basin, this requirement will be advised by HDC at the earliest opportunity, otherwise a wall hung basin should be provided. HS
- 9.20 A tall mirror should be fitted above the basin so that a person seated or standing can see themselves in it. HS

Toilets

- 9.21 Toilets should be a minimum of 400mm in height from the floor. M4(3) (Diagram 6)
- 9.22 Toilets should be positioned 450mm-500mm to centre line of toilet bowl from adjacent wall to allow for easy reach of grab rails on that wall. M4(3) (Diagram 6)
- 9.23 There should be a minimum of 1200mm from the centre line of the toilet to the edge of the shower area or other obstruction, and a clear space provided in line with Clear Access Zone requirements within. M4(3) (Diagram 6)
- 9.24 Toilet waste should go directly out the back to allow for future use of a toilet frame, no side waste or boxing should be located to the side of the toilet.
 HS
- 9.25 The toilet should project a minimum of 750mm from the back wall to give adequate space for a shower toilet chair to be pushed over the toilet should this be required. HS (Diagram 6)
- 9.26 There should be a reinforced area of 1000mm x 1000mm x 100mm adjacent to the toilet to allow for the fitting of rails. M4(3)
- 9.27 The toilet flush should be sited on front of the cistern and the transfer side of the toilet. Controls should be located at optimum height for the user and should be a spatula type flush. M4(3) (Diagram 6)
- 9.28 Where the incoming resident has a need for a closomat toilet, this requirement will be advised by HDC at the earliest opportunity, and a proposal discussed. HS

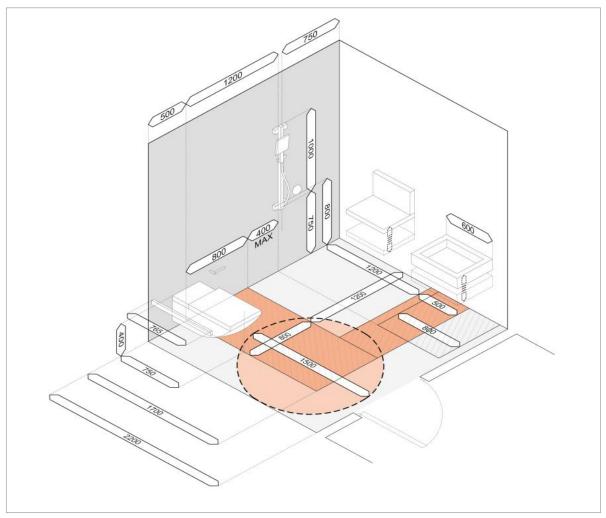


Diagram 6: Bathroom Requirements - with Shower

Section 10. Bedrooms

General Requirements

- 10.1 For the principle bedroom a clear access zone of 1000mm at each side and foot of the bed will be required, as well as a minimum 1200mm x 1200mm manoeuvring zone on both sides of the bed. M4(3)
- 10.2 For the principle bedroom a clear access zone of 1000mm will be required in front of all furniture. M4(3)
- 10.3 Space should be provided for bed, wardrobe, bed side cabinets, chest of drawers, desk and chair and should allow for furniture should comply with Part M4(3) requirements in line with the following dimensions: M4(3)

Bed: 2000mm x 1500mm Wardrobe: 600mm x 1200mm

Bedside cabinets: 2 x 400mm x 400mm

Desk and chair: 500mm x 1050mm Chest of drawers: 450mm x 750mm

- 10.4 Provision of an adequate number of sockets within the bedroom is essential (users may have electric profiling beds, powered alternating mattresses and other items such as communication aids which may need to be charged at night). Additional sockets should be sited in sensible locations near to where the bed will be positioned. HS
- 10.5 The position of light switches should be considered so that the main light can be switched on and off from the bed. M4(3)

Section 11. Additional Internal Requirements

Consumer Units

11.1 Consumer units should be sited in an accessible location and at a height of 1350mm - 1450mm. Where consumer units are placed in a cupboard, these should be accessible and would require a door with a clear opening width of 850mm. M4(3)

Switches, Sockets and Controls

- 11.2 Electrical sockets, telephone points and TV sockets should be positioned 700mm to 1000mm above the floor and 700mm in from a corner. Boiler controls and thermostats should be in the range of 900mm 1200mm above floor level as should all switches and controls that require precise hand movements, such as heating installations, ventilation etc. M4(3)
- 11.3 All outlets, switches and controls should be a minimum of 700mm from an inside corner. M4(3)
- All sockets and controls in the kitchen should be positioned to allow easy access by wheelchair users. Where sockets/controls are mounted above a worktop, they should be sited no more than 100mm above the worktop, and where they are mounted on a wall with no intervening worktop, they should be positioned no more than 900mm from floor level. HS

Additional Storage

11.5 In wheelchair accessible homes a dedicated space for wheelchair storage and transfer should be provided. This should be a minimum area of 1100mm x 1700mm with power socket and preferably near to the entrance of the home. M4(3)

Section 12. Parking

- 12.1 Any parking spaces associated with the accessible property should be as close as possible to the relevant main entrance. M4(3)
- 12.2 There should be covered parking spaces to provide protection from adverse weather when transferring from a wheelchair to a vehicle. Any uprights, posts etc should be cited to avoid impediment of the wheelchair user. HS
- 12.3 Within the private curtilage of a dwelling the parking bay for a wheelchair user should be the size of a standard bay 2500mm wide x 5000mm long plus a clear access zone of 1200mm to one side and to the rear. HS
- 12.4 Disabled parking spaces in communal parking must be the size of a standard parking bay 2400mm wide x 4800mm long *plus* a minimum clear access zone of 1200mm each side of the bay to give wheelchair transfer space and manoeuvrability. M4(3)
 - Where communal parking is provided, the access zone can be shared by two parking bays. M4(3)
- 12.5 Parking spaces should have a firm and level surface with no loose material such as gravel. M4(3)
- 12.6 There should be step-free access between the parking bay and the dwelling. M4(3)
- 12.7 Dropped kerbs where provided should be a minimum of 1000mm wide, reasonably flush with the adjoining ground and with a maximum gradient of 1:15. M4(3)

Section 13. Gardens and Bin Storage

Gardens

- 13.1 Gardens should be level and should be fully accessible by wheelchair users.
 HS
- 13.2 Any path within the garden, including paths providing access to a shed should be a minimum width of 1200mm. HS
 - Paths should provide a suitable ground surface which is level and even, slip resistant and with no loose materials, and should terminate in a clear turning area of 1500mm in diameter. M4(3)
- 13.3 The garden should be enclosed and secure to allow for assistance dogs to be kept at the property if required. HS
- 13.4 Gardens should not be too large so that they are more feasible for a household to manage. HS
- 13.5 Any patio areas should have a suitable ground surface and should be a minimum of 3m x 3m in size. HS

Bin Storage

- 13.6 Bin storage areas (either private or communal) should be accessible by a wheelchair user with a path of no less than 1050mm minimum width which should be level or gently sloping. M4(3)
- 13.7 Bin storage should be sited at the front of the building or allow easy access for a wheelchair user to move bins to the front of the building with no obstructions such as steps. HS