

# **Greenwich Wheelchair Site Brief 2012**

Guidelines to achieve the necessary standards for wheelchair user's dwellings

[www.royalgreenwich.gov.uk](http://www.royalgreenwich.gov.uk)

*The Greenwich Wheelchair 'Site Brief'* has been devised to achieve the necessary standards for wheelchair users. To this end, property 'footprints' shall be larger than those of Lifetime Homes and dwellings shall not exceed two storeys.

In dwellings with two storeys there should be a fully accessible shower room on one floor and a fully accessible bathroom on the other floor.

The guidelines are provided in order to ensure that homes are entirely suitable to wheelchair users.

The following figures indicate the size of the typical footprints that will result from complying with the guidelines:

1 bed (2 person)	65m <sup>2</sup>
2 bed (3 person)	75m <sup>2</sup>
2 bed (3 person house)	80m <sup>2</sup>
2 bed (4 person)	85m <sup>2</sup>
2 bed (4 person house)	100m <sup>2</sup>
3 bed (4 person)	100m <sup>2</sup>
3 bed (4 person house)	110m <sup>2</sup>
3 bed (5 person)	110m <sup>2</sup>
3 bed (5 person house)	120m <sup>2</sup>
3 bed (6 person)	115m <sup>2</sup>
3 bed (6 person house)	125m <sup>2</sup>
4 bed (5 person)	116m <sup>2</sup>
4 bed (5 person house)	125m <sup>2</sup>
4 bed (6 person)	125m <sup>2</sup>
4 bed (6 person house)	130m <sup>2</sup>

The plans which form part of this Brief indicate the minimum size that is required for the various rooms in any wheelchair dwelling. Please note that these plans are not to scale and are designed to illustrate how room sizes were calculated. Where rooms in the dwelling are combined, such as the living and dining rooms, then the minimum space requirements for the individual rooms will be required to be added together. Windows are not shown and allowing for access to them is likely to increase the size of room required.

Plans must be reviewed and agreed by Housing Occupational Therapists prior to commencement of any building works. Plans submitted for approval shall be in 1:50 except for separate kitchen, bath and shower room layouts which shall be in 1:20. At submission of details stage or prior to work commencing on site, whichever comes first, 1:20 elevations are required for the kitchen, bath and shower rooms.

Wheelchair housing shall be evenly distributed across the site and a range of size units in accordance with the supplementary planning guidance 'Accessible London: achieving an inclusive environment' (GLA's London Plan Policy 3A:4 Housing Choice).

It is important to consider design issues relating to blind and partially sighted people. It is strongly recommended that consideration is given to issues raised in the RNIB publication '**Building Sight**' or other design guide covering visual issues.

**The Greenwich Wheelchair 'Site Brief' Standards comply with (and occasionally exceed \*) 'Part M' of the Building Regulations, 'British Standard 8300', 'Lifetime Homes', the Housing Corporation 'Scheme Development Standards', Stephen Thorpe's 'Wheelchair Housing Design Guide' and 'The Mayor of London's Wheelchair Accessible Housing Guide'**

**\* An asterisk will indicate where the 'Site Brief' exceeds other standards.**

**Part M of the building regulations** – is about '**Visitability**' for people with disabilities and generally applies to ground floor access and access to a toilet in domestic dwellings. It does not provide full wheelchair accommodation.

**British Standard 8300 (BS 8300)** – is a good practice guide to improve design for people with a variety of disabilities.

**'Lifetime homes'** – were devised by the Joseph Rowntree Trust and cater for **a range of life needs from pram-pushing to using a walking frame** but the space afforded is insufficient to allow for the turn of a wheelchair in both the hall and the living areas. The standards would be adequate for occasional or part-time wheelchair use. They are recommended as the norm for 'general needs' housing.

**'Housing Corporation Design and Quality Standards'** (replaces Scheme Development Standards) – set **standards** which must be complied with for all homes receiving funding (Social Housing Grant) from the Housing Corporation. For wheelchair homes the Housing Corporation Design and Quality Standards direct readers to: '**Wheelchair housing design guide**' – by Stephen Thorpe which **offers guidance** to help meet the Housing Corporation Scheme Development Standards.

**'The Mayor of London's Accessible Housing Guide'** has been produced to provide **advice** on how to implement the London Plan policy on wheelchair accessible housing. London Plan policy states that at least 10% of new homes should be designed to be wheelchair accessible or easily adaptable for residents who are wheelchair users.

**The Greenwich wheelchair 'site brief'** – indicates all the **essential** features to be included in dwellings built for wheelchair users.

<b>Contents</b>	<b>Page</b>
1. Moving around outside	5
2. Using outdoor spaces	6
3. Approaching the home	7
4. Negotiating communal entrance doors	8
5. Entering and leaving, dealing with callers	9
6. Negotiating the secondary door to garden or balcony	10
7. Moving around inside/storing things	11
8. Moving between levels	12
9. Using living spaces	13
10. Using the kitchen	14
11. Using the bathroom and shower room	15
12. Using bedrooms	18
13. Operating doors	19
14. Operating windows	20
15. Controlling services	21
APPENDIX A & B	22
APPENDIX C	23
DRAWINGS	25 - 39

## 1. Moving around outside

- 1.1 **Pavement crossovers:** Dropped kerbs 1000mm minimum width, sited in pairs opposite each other, gradient shall not exceed 1:12 with a slip resistant surface differing from that of pavement.
- 1.2 **Paths:** Width 1200mm, crossfalls must not exceed 1:50.
- 1.3 **Ramps:** Gradient 1:20\*, width 1200mm clear between handrails, 10 metres maximum length between resting platforms, non-slip surface, platforms at every change of direction and at door or gate 1500mm square or 1200mm x 1500mm\*.
- 1.4 **Protected edges:** 100mm kerb on paths and ramps.
- 1.5 **Rails:** Where there is a drop to the side of a path or ramp, midrail at 550mm and top rail 900mm extending 300mm horizontally beyond top and bottom ends of ramps. A protected edge is still required but may be part of the railing. Ensure access for stretchers, average 610mm x 1550mm.

## 2. Using outdoor spaces

- 2.1 **Gate:** 900mm clear opening\* operable from both sides, not spring loaded.
- 2.2 **Approach space outside external door:** 1500mm x 1500mm platform extending 550mm\* from the lock side, and increased by the space used by an outward opening door, slip resistant surface with slight drainage falls.
- 2.3 **Clothes drying:** Accessible facilities, i.e. suitable for use from a wheelchair as described in section 1.
- 2.4 **Routes from external doors to storage, refuse and gate:** Shall be accessible and short (as described in section 1).
- 2.5 **Balconies:** Wheelchair accessible threshold, door 900mm clear opening, if double doors 1 leaf to be 900mm clear (Not Sliding doors). 1500mm minimum turning circle unobstructed by door swing.
- 2.6 **Gardens and Patios:** should be accessible and level.

### 3. Approaching the home

- 3.1 **Car parking:** One allocated disabled parking bay is required for each wheelchair unit. Bay to be 4000 x 6600mm\* slip resistant level surface, where possible covered, height 2300mm\* Any proposed variation to be negotiated and agreed with Local Authority.
- 3.2 **Where car parking is behind automatic gates:** Hand held remote controls are required for disabled residents.
- 3.3 **Route to entrance:** Accessible as described in section 1 (covered if possible).
- 3.4 **Door canopy:** 1200 x 1500mm, height 2300mm extending beyond the door on the lock side 550mm.
- 3.5 **Lighting:** To car parking space, route to entrance and entrance itself, Passive Infra-Red (P.I.R.) detector and internal switching.
- 3.6 **Ground floor flats:** It is preferable that ground floor flats be designed so they can be accessed directly by their own front doors and not by communal doorways and corridors.
- 3.7 **Communal corridors:** Access to wheelchair units to be min 1200mm wide. If more than 1 wheelchair unit along a corridor then to be 1800mm wide to allow wheelchair users to pass or have passing places 1800mm wide and 1200mm long at reasonable intervals.
- 3.8 **Communal internal corridor doors** to be limited as far as possible. Where necessary to be type held open until released when fire alarm activated.
- 3.9 **Lifts:** Where wheelchair units have to be above ground floor, 2 wheelchair accessible lifts are required, with space for a wheelchair and at least one ambulant person. Lifts need to provide access to any communal facilities such as shared gardens.

## 4. Negotiating communal entrance doors

- 4.1 **Clear 900mm\* door opening:** 550mm\* approach space to both the inside and outside of the door on the lock side.
- 4.2 **Approach space inside the external door:** 1800mm from the face of the door and 1500mm wide.
- 4.3 **Threshold:** Weather tight with maximum 15mm bevelled upstand.
- 4.4 **Locks:** Deadlock height between 800 and 900mm, latch lock height between 900 and 1000mm with lever or easy grip handle. (Allow for 300mm rail for use as pull handle height between 800mm and 1000mm).
- 4.5 **Communal doors:** Shall be operable from a wheelchair. This will require mechanical assistance, remotely controlled. Maximum opening and closing force of doors 20 Newton's at the leading edge for ambulant users.
- 4.6 **Entry phone:** To communal front door to have table top handsets with 2m cable in the living room and bedroom. Kitchen handset to be wall fixed to avoid trailing cables.



## 5. Entering and leaving the home, dealing with callers

- 5.1 **Clear 900mm\* door opening:** 550mm\* approach space to both the inside and outside of the door on the lock side.
- 5.2 **Approach space inside the front door:** Is essential for transfer to a second wheelchair 1800mm x 1500mm.
- 5.3 **Threshold:** Weather tight with maximum 15mm bevelled upstand.
- 5.4 **Storing and charging for wheelchair:** To be near front door to limit transfer of dirt and water into the dwelling. Location of this space in the living or bedroom space is not acceptable. Maintain a 1500mm turning circle and provide a 1500mm x 1200mm charging space with power socket. Headroom minimum of 1500mm allows for under stairs area to be used for this. The 1800mm x 1500mm space required in 5.2 can include the 1500mm turning circle required here if appropriate.
- 5.5 **Spy hole:** Height 1150mm centrally placed.
- 5.6 **Doorbell:** Height between 800 and 900mm, lock side of door.
- 5.7 **Letterbox:** Height 700mm with wire basket (not infringing on the 900mm clear opening).
- 5.8 **Private door:** Shall be operable from a wheelchair. Ensure that locking mechanism is compatible with a mechanical opener and that a suitable power supply is provided - i.e. that the front entrance doors of flats should be capable of future installation of mechanical openers. The opening and closing force of doors must be no more than 20 Newtons at the leading edge.
- 5.9 **Entry phone\*:** Private front entrance door entry phone(s) to be installed with table top handsets and 2 metre cable in living room and bedrooms. Kitchen handset to be wall fixed at a height of 800mm to avoid trailing cables. Ensure locking mechanism to front doors compatible with an entry phone.

## 6. Negotiating a secondary door to garden or balcony

- 6.1 **External level landing:** 1500 x 1500mm\* and extend in length by 900mm if the door swings outwards.
- 6.2 **Clear 900mm\* door opening:** 550mm\* approach space to both sides of the door on the lock side, level weather-tight threshold as for front entrance door see (p9 item 4.3).
- 6.3 **Secure lock or multi-locking:** Height between 800 and 1000mm for latches, pull handles, lever handles. Outward opening external doors require secure stays. The type of lock provided to allow for operation in conjunction with an overhead door opener. A minimum 120mm space above the doors to allow for powered opener.
- 6.4 **External lighting:** To the door and en route with P.I.R. lighting and internal switching.
- 6.5 **French windows:** 900mm\* minimum clear opening on at least one of the double doors. If used, opening and locking to be possible one handed from a wheelchair.
- 6.6 **Sliding doors:** Shall not be used, rarely provide negotiable threshold.

## 7. Moving around inside/storing things

- 7.1 **All passageways:** Minimum 1200mm\* width clear of obstructions.
- 7.2 **Internal door openings:** Recommended clear opening 900mm (a minimum clear opening of 840mm\* is only acceptable if unavoidable), 550mm approach space to opening edge both inside and outside the room. No 2 leaf doors.
- 7.3 **Suitable storage:** Ensure depth and width of storage space in combination with any shelving layout provides optimum access to space and to stored items.
- 7.4 **Flooring:** Where floor covering provided to be a material with high friction and low glare. Slippery/polished surfaces to be avoided.

## 8. Moving between levels

This section refers to houses and maisonettes/duplexes on 2 levels.

- 8.1 **A vertical lift:** Is essential, positioned hall to landing, complying with BS 5900:1999. 1500mm turning circles are essential outside lift door on both levels clear of the door swing.
- 8.2 The minimum internal lift dimension required is 790mm wide, 1120mm long.
- 8.3 Powered lift doors are required.
- 8.4 External lift controls to be accessible from a wheelchair and position to be agreed with Housing Occupational Therapist.
- 8.5 Position of lift: There should be a minimum distance of 1800mm between the lift door and the top stair. The lift should not open out straight onto the stairs.

## 9. Using living spaces

- 9.1 **Turning circle:** Each room shall have extra space for 1500mm turning circle clear of the door swing but close to the door.
- 9.2 **Transfer spaces:** 1400mm\* is required in front of any furniture.
- 9.3 **Operable fittings:** Reaching heights between 800 and 1000mm.
- 9.4 **Radiators:** Shall not impede circulation.
- 9.5 **Sockets:** Shall be at least 750mm from a corner, height 800mm to top of socket plate.
- 9.6 **Light switches:** Full plate or large rocker light switches must be specified, height 900mm to top of switch plate.
- 9.7 **Hoists:** Ceiling shall be horizontal and have structural capacity for future possible hoist installation. The maximum weight load including equipment is 250kg. The minimum ceiling height is 2400mm. The maximum ceiling height is 3650mm. \* See Appendix B, Page 26

## 10. Using the kitchen

- 10.1 **Space and layout:** 1500mm turning circle plus room for another person i.e. 1800mm x 1500mm clear manoeuvring space.
- 10.2 **Worktop:** A continuous surface with knee recess is essential under and between hob and sink unit\*. Knee recess height 600mm. The work surface shall be adjustable, tiled behind, for heights from 700mm to 900mm. An 800mm wide section of adjustable height worktop with knee recess alongside the hob/sink section which can act as a work station. Fascia boards and vertical supports are to be avoided.
- 10.3 **Provide storage:** Appropriate to the size of dwelling (as set out in National Housing Federation 'Standards and Quality in Development: A Good Practice Guide'), the major proportion of which is in a position and format useable from a wheelchair. When requested by the Housing Occupational Therapist wall units with pull down baskets should be provided.
- 10.4 **Provide adjustable sink:** With insulated bowl, reachable from a wheelchair, easily manipulated taps (e.g. short lever) and flexible plumbing, tiled behind, for heights from 700mm to 900mm.
- 10.5 **Provide adjustable hob:** A flat surface hob, for example a ceramic or induction hob, with front or side controls, wall tiled behind to allow adjustment between 700mm and 900mm. Minimum of 300mm to each side of hob for pan handles, to be adjustable with the hob.
- 10.6 **Built in oven:** accessible from a wheelchair, i.e. 800mm to the centre of the oven, with reversible side hung door and non-tilt shelves. Heat resistant pull out shelf below oven. A 300mm worktop space to be available to the side of the oven on the opening side of the oven door.
- 10.7 **Additional space for appliances:** Is essential for people with disabilities, especially in smaller units. For example, spaces should be provided for three appliances in addition to hob and oven, with electrical and water services. Four such spaces should be provided in larger dwellings accommodating five or more persons.
- 10.8 **All controls and socket outlets:** Shall be accessible. Provide remote and labelled switches for appliances and equipment. Switches shall be 150mm above maximum worktop level to the top of the socket plate.
- 10.9 **Internal refuse:** If provided, arrangements shall be manageable from a wheelchair.
- 10.10 **Fridge:** 300mm worktop space to be on the opening side of the fridge door.
- 10.11 **Windows:** windows above units or work surfaces shall have window winders. Position of controls to be agreed with Housing Occupational Therapist.

## 11. Using the bathroom and shower room

- 11.1 Space for bath and shower:** Will vary between 1/2 bed dwellings and 3+ bed dwellings. In dwellings with two storeys there should be a fully accessible shower room on one floor and a fully accessible bathroom on the other floor.
- 11.2 1 and 2 bedroom dwellings:** Shall be provided with fully operational level access shower including all fittings. A bath shall be available on site and installed over the gully when necessary for individual tenants. This decision will be made at viewing. Where the dwelling has both a shower room and a bathroom then side transfer to WC to be on the left for one and on the right for the other.
- 11.3 3 or more bedroom dwellings:** Shall have a fully operational bathroom and a fully operational shower room\*, each with WC and side transfer to WC to be on the left for one and on the right for the other.
- 11.4 Bathroom and shower room:** not to be en-suite unless secondary access from hall/corridor.
- 11.5 Re: 11.2 and 11.3:** A gully with 1:40 falls in the centre of a bathroom floor makes the space harder to negotiate in a wheelchair. Greenwich requires a useable shower 1200mm square\* in the corner of the room. 1:40 falls to the gully in the same corner. It is advisable to ensure a drainage fall across the whole floor.
- 11.6 Turning circle:** Bath and/or shower rooms must each have 1500mm turning circle clear of the basin and WC.
- 11.7 Transfer space to side:** Of WC pan, shower seat and bath must be 850mm from side edge; front edge of WC pan to rear wall must be 800mm\* unobstructed.
- 11.8 Transfer space to front:** Of WC pan and shower seat must be 1100mm.
- 11.9 WC and Shower-seat position:** to be 500mm from the centre of the seat or pan to nearest wall or obstruction to allow for rail fitting space.
- 11.10 Hoist transfer space:** Between edge of WC pan and edge of bath must be a minimum of 850mm\*.
- 11.11 Fixings\*** Structural capacity shall be provided in every bathroom and shower room for:
- ceiling track hoists (and ceiling shall be horizontal)
  - rails by WC
  - shower seat and rails
  - floor fixed equipment
  - over bath rails

\* See Appendix A & B, Page 22

## 11. Using the bathroom and shower room continued

- 11.12 **WC height:** Should be standard i.e. 400mm pan with standard seat and cover.
- 11.13 **The cistern:** Must have a splayed lever handle on the outer/transfer side.
- 11.14 **Showering space:** Shall be at least 1200mm square.
- 11.15 **Level access shower:** Seat shall be on site and have drop-down legs, a back and drop-down arms and be height adjustable for fitting if required\*.
- 11.16 **Level access shower:** Controls shall be large and easy to see with anti-scald thermostatic control pre-set at a temperature of 43°C, 750mm from corner to edge of controls, height 1000mm.
- 11.17 **Level access shower:** Slider bar 1000mm long, 600mm from corner, lower height 1000mm on same wall as controls.
- 11.18 **Level access shower:** Hose 1500mm long.
- 11.19 **Rail with weighted shower curtain:** Required to contain water. The curtain shall fall to 15mm from finished floor level and enclose 1200mm square. Rail height to allow for ambulant use of the shower.
- 11.20 **Bath:** Must be standard i.e. height 520mm, width 700mm, length 1700mm, i.e. NOT A SHALLOW BATH.
- 11.21 **Bath taps:** Shall be short lever type and fitted either centrally or on the outside corner on the short side of the bath so as not to hinder transfers.
- 11.22 **Integral bath rails:** Shall not protrude above the rim of the bath nor hinder transfers.
- 11.23 **Over bath shower:** Controls shall be large and easy to see with anti-scald thermostatic control pre-set at a temperature of 43°C. Position 750mm along the length of the bath from the tap end, height 1000mm from finished floor level.
- 11.24 **Over bath shower:** Slider bar 1000mm long located 900mm along the length of the bath from the tap end. Lower height 1000mm from finished floor level.
- 11.25 **Over bath shower:** Hose 1500mm long. If hair rinse shower then standard shorter hose required.



## 11. Using the bathroom and shower room continued

- 11.26 Wash-hand basin:** Shall be non pedestal, cantilever, adjustable height with flexible plumbing and splashback tiled in advance for heights from 700mm to 1000mm\*. Taps must be short-lever. Basin to be suitable for family use, NOT the hand rinse type referred to in Part M documents. Its position should not infringe the transfer space required in paras 11.7 and 11.8. Centre of wash hand basin to be no less than 500mm to the centre from the nearest corner or obstruction. There should be at least 800mm from the front edge of the WC pan to the nearest edge of the wash hand basin.
- 11.27 Rails:** 2 x 750mm dropdown rails with support legs, 2 x 600mm and 2 x 450mm pressalit type grab-rails with slip resistant surface shall be available but NOT FITTED until tenant identified and assessed. Where a WC pan has been boxed off the wall a longer drop down rail 1000mm long shall be available. This list is not exhaustive.
- NB. Arrangements are required to be in place for installation of shower seat and rails as directed by an Occupational Therapist, prior to tenants moving into the property.
- 11.28 Floor:** Shall be waterproof and slip resistant, sheet material (i.e. not tiles) extending up the wall by 150mm.
- 11.29 Pull switches:** Shall have large pull cord restraining eye and height 800mm.
- 11.30 Shaving point:** Height between 800mm and 1000mm.
- 11.31 Over basin light:** Shall have pull cord long enough to reach from a wheelchair.

## 12. Using bedrooms

- 12.1 **Turning circle:** All bedrooms shall have 1500mm turning circle clear of door swing.
- 12.2 **Transfer space:** To each side of double bed and one side of single beds shall be 1100mm\*.
- 12.3 **Access past bed:** A minimum of 1000mm between end of the bed and the wall, 1400mm if furniture opposite foot of bed.
- 12.4 **Access to furniture:** 1400mm\* is required in front of all furniture i.e. wardrobe, dressing table and chest of drawers.
- 12.5 **Controls:** Single bedrooms shall have 3 double socket outlets. Twin and double bedrooms shall have 4 double socket outlets. Sockets to be at least 750mm from a corner, height 800mm to top of socket plate.
- 12.6 **Adjacent to bed head:** Shall have socket outlet, entry phone point and 2-way light with pull cord over the bed, TV point to be suitably placed to allow viewing from the bed
- 12.7 **Hoists:** Ceiling shall be horizontal and have structural capacity in all bedrooms for future possible hoist installation\*.

## 13. Operating doors

- 13.1 **Door construction:** Shall permit subsequent horizontal rail fitting at height between 800mm and 1000mm.
- 13.2 **Lever handles:** Height between 800mm and 1000mm.
- 13.3 **Internal locks:** Shall be easily manipulated inside and outside in emergencies, height between 800mm and 1000mm.
- 13.4 **Emergency opening:** Bathroom, shower room and WC doors shall open outwards.
- 13.5 **Self-closing doors:** Shall be operable independently from a wheelchair and have delayed action closing. Maximum opening and closing force of doors 15 Newton's at leading edge.

## 14. Operating windows

- 14.1 **Handles:** A single operating handle, height between 800mm and 1000mm shall be provided within reach for wheelchair user.
- 14.2 **Remote control:** Where window handle cannot be reached, install manual or powered window opening and locking gear within reach for wheelchair user.
- 14.3 **Safety:** Windows opening outwards shall not create hazards.
- 14.4 **Glazing line:** Shall not exceed height 800mm (except in kitchen and possibly bathroom).

## 15. Controlling services

- 15.1 **Main services:** Gas controls and electric consumer units shall be accessible for a wheelchair user at least 750mm from a corner, control height between 800 and 1100mm and seeing height 1200mm\*.
- 15.2 **Mains water:** Stopcock shall be accessible for a wheelchair user, at least 750mm from a corner, control height 800mm\*.
- 15.3 **Plumbing:** Isolating stop taps shall be provided for sink, washing machine, WC and shower, all reachable from a wheelchair.
- 15.4 **Flexible plumbing:** Shall be fitted to sink and wash hand basins.
- 15.5 **Radiators:** Low Surface Temperature (LST) radiators shall be installed in all bathrooms and shower rooms and any other restricted areas.
- 15.6 **Light switches:** Full plate or large rocker light switches shall be specified, two way where required, height 900mm to top of switch plate.
- 15.7 **Pull light switches:** Shall have large pull cord restraining eye and height 800mm.
- 15.8 **Socket outlets:** Shall have large switches on the outer ends of double sockets, at least 750mm from a corner, height 800mm from floor or 150mm above the maximum worktop level to the top of the socket plate.
- 15.9 **Socket outlets for appliances:** Socket 600mm where it is below worktop, with remote switch 150mm above maximum worktop level.
- 15.10 **Radiator positions:** to be agreed at planning stage and any alterations on site to be agreed with the Housing Occupational Therapist.
- 15.11 **Radiator controls:** Control valves, at the most accessible end of the radiator, shall be at a height of 800mm, easy to grip with 35mm clearance from wall.
- 15.12 **Central heating controls:** Boiler ignition, programmer, timer pump and thermostat shall all be at least 750mm from a corner, height 800mm and accessible for a wheelchair user.
- 15.13 **Telephone:** Provide a line with socket outlets, height 800mm in living-room, kitchen and bedrooms.
- 15.14 **Entry phone\*:** Provide an intercom and door opening system with handsets in bedrooms, living room and kitchen, position to be identified on plan. Table top version with 2 metre cable is required in living room and bedrooms. Kitchen handset to be wall fixed, height 800mm.

## **APPENDIX A**

Wall to the side of the WC to be strengthened up to min height of 1500mm and min 500mm in front of the pan.

Wall behind WC strengthened to min height of 1200mm and min 500mm each side of the cistern.

Wall behind basin strengthened to min height 1800mm and 500mm either side.

Wall with shower controls strengthened to min height 2000mm and min 1200mm from corner of shower enclosure.

Wall behind shower seat strengthened to min height 1500mm and min 1200mm from corner of shower enclosure.

## **APPENDIX B**

### **CALCULATIONS FOR CEILING TRACK HOIST**

Calculation for hoist track loadings should be based on the following:

Hoist Unit Weight:	15kg
Hoist Tracking:	3kg per metre
Safe Working Load of the Hoist is:	150kg x 1.25 (Test Load)
Maximum Span of Track between fixings is:	900mm
Maximum distance of first fixing from end of track is:	150mm
Minimum Ceiling height	2400mm

## APPENDIX C

### Royal Borough of Greenwich

#### New Build Wheelchair Standard Dwellings PROTOCOL FOR R.S.L.s/Developers

#### Housing Occupational Therapist “CONTACT STAGES” in the design and construction of Wheelchair Users Units.

##### Background

It is a requirement, as detailed in the South East Sub Regional Guide to RSL/Developers that 10% of the units are built to the SELHP Wheelchair Standard. We require the wheelchair units developed as part of the affordable housing provision on S106 developments to be built to this standard.

In Greenwich the SELHP Wheelchair Standard is currently referred to as the Greenwich Wheelchair Site Brief 2012.

**The SECTION 106 will include the most recent version of the Greenwich “Wheelchair Standards Site Brief” and this protocol.**

The requirements set down in the Wheelchair Site Brief must be considered at the earliest possible phase of the process. Extra space is required above that necessary for Lifetime Homes compliance. To ensure that the space can be achieved early identification of wheelchair units will be essential. Plans will need to show where the wheelchair units are located as early as possible for approval.

The mix of bed sizes required in the wheelchair units will be agreed at pre-planning stage.

The Housing Occupational Therapists are available for consultation on the plans prior to stage 1.

The site visits by Occupational Therapists below are the minimum required. Further visits can be requested throughout the building phase.

**One year prior to completion: Housing OT to be contacted to confirm the number of wheelchair units that are required to be fully fitted for wheelchair use.**

**STAGE 1** Contact to view 1:50 plans with essential furnishings shown at the planning application stage, preferably a few weeks before submission date so as to allow for comments to be acted upon and any alterations reviewed.

**STAGE 2** Final 1:50 plans agreed.

**STAGE 3** 1:20 plans with elevations for WC, Shower Room, Bathroom and Kitchen submitted to Housing OT for layout approval.

**STAGE 4** Final I:20 plans agreed. If kitchen plans produced by a specialist firm (after this stage) these must be approved by Housing OT before installation.

**STAGE 5** Site visit at first fix and subsequently at appropriate times to ensure minimal disruption if alterations are required.

An example would be when plumbing and electrics are in place but wall finishes not completed.

RSL Development Manager and Employers Agent or Consultant to be present when Housing OT visits site.

**STAGE 6** Site visit prior to handover to Registered Social Landlord “OT snagging”. RSL Development Manager and consultant to be present.

**STAGE 7** Nomination of potential tenants at a maximum of six weeks before viewing.

**STAGE 8** Tenant viewing must be accompanied by Housing Occupational Therapists so that customising details can be agreed such as shower seat and rail positions and kitchen worktop height. These are to be completed prior to the tenant moving in.

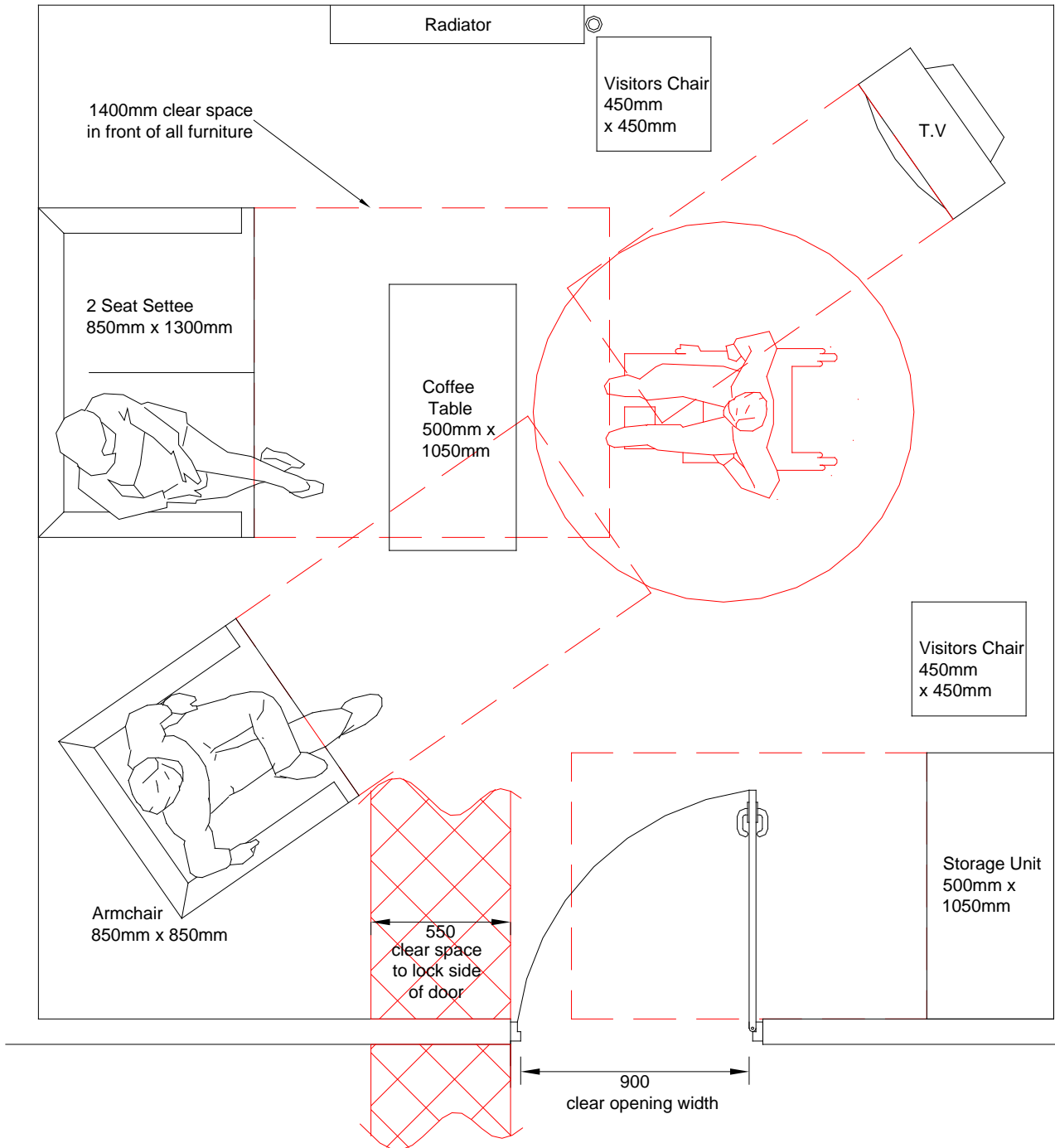
Contact: Liezl Louw  
Senior Housing Occupational Therapist  
Disability and Home Improvement Team  
The Woolwich Centre  
2nd Floor  
35 Wellington Street  
Woolwich  
SE18 6HQ

Email: [liezl.louw@royalgreewich.gov.uk](mailto:liezl.louw@royalgreewich.gov.uk)

Telephone: 020 8921 2604

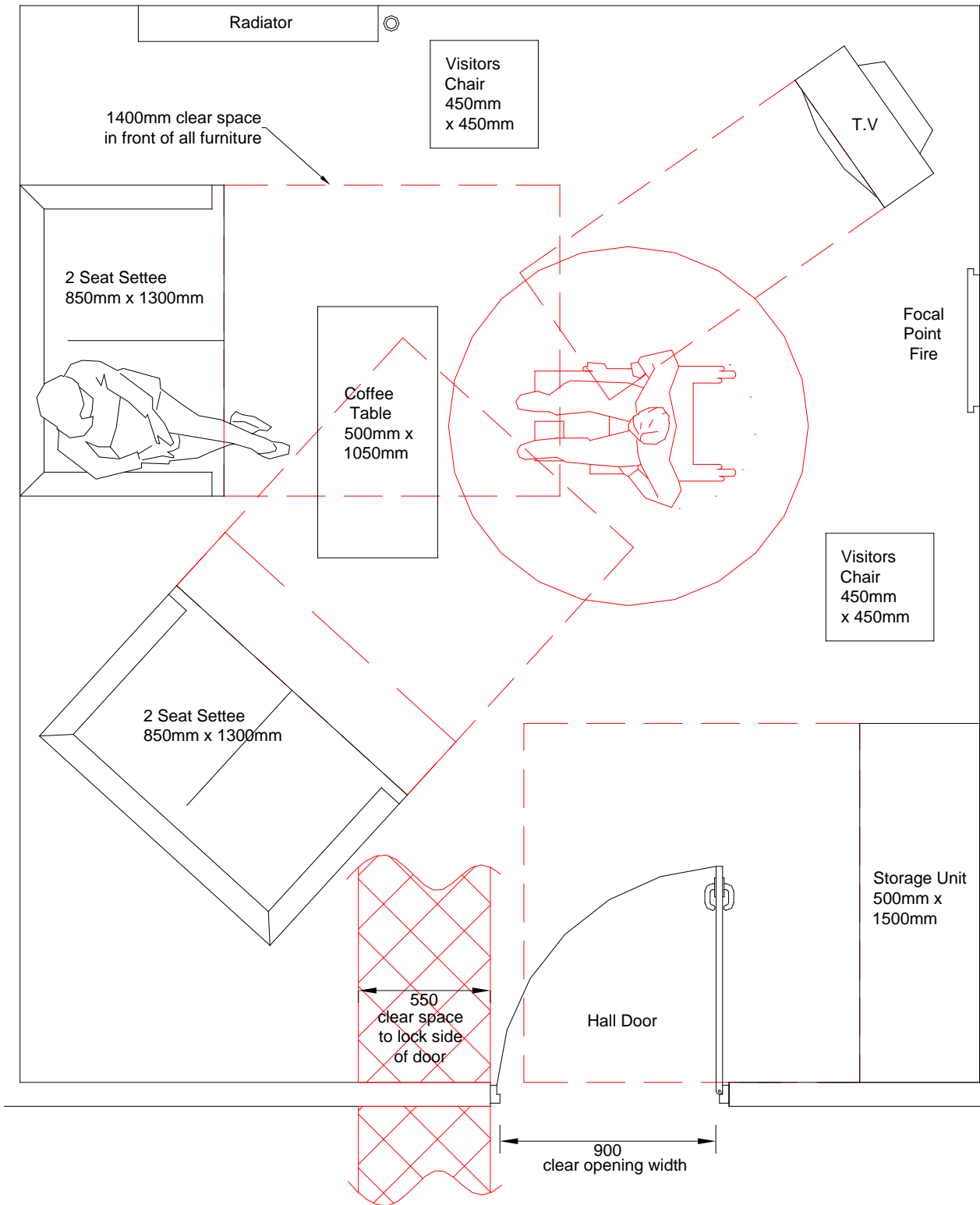
Protocol revised July 2013





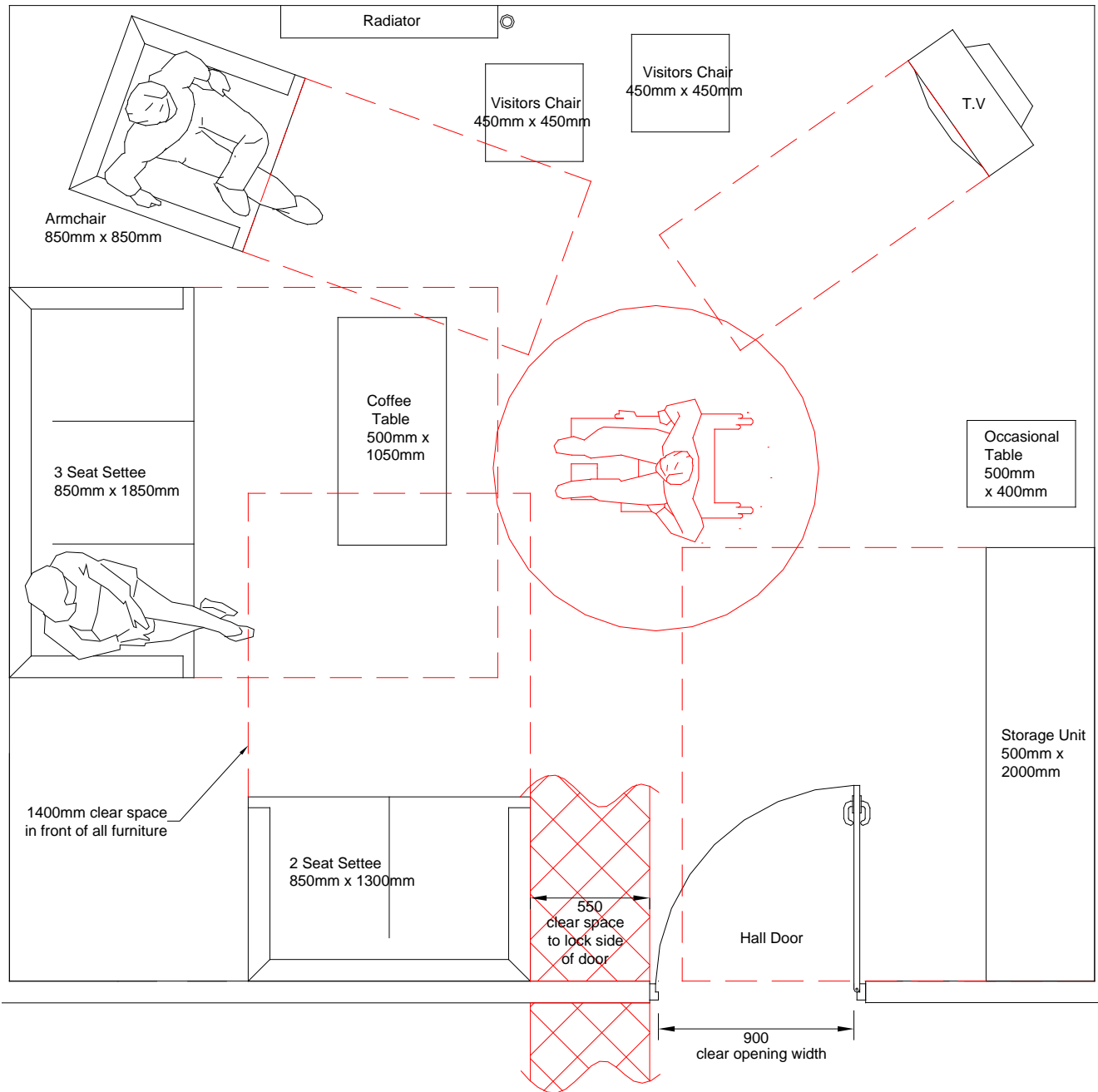
**Lounge 1-3 person, minimum 16m<sup>2</sup>**

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



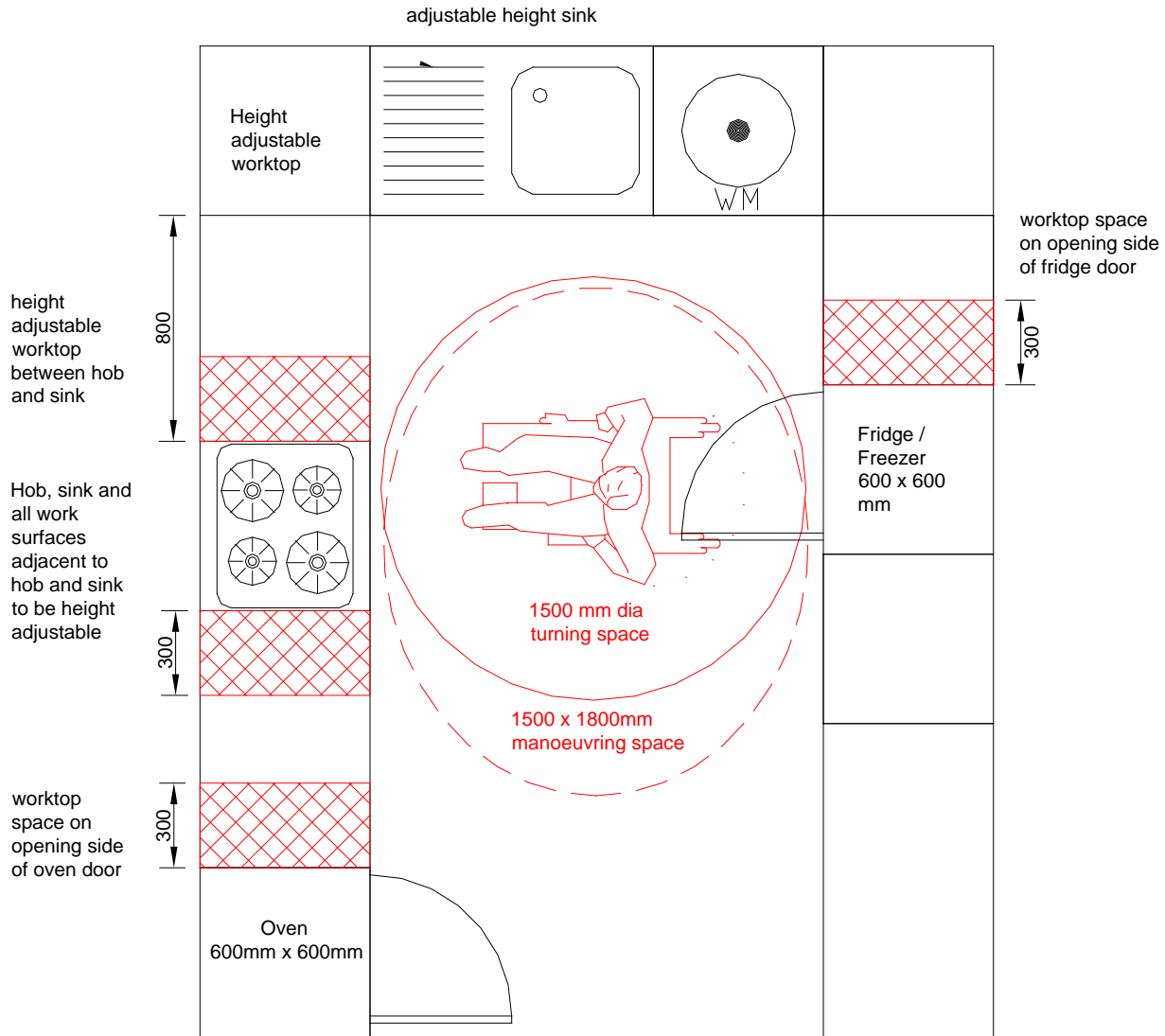
**Lounge 4 person, minimum 18m<sup>2</sup>**

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



**Lounge 5-6 person, minimum 23m<sup>2</sup>**

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6

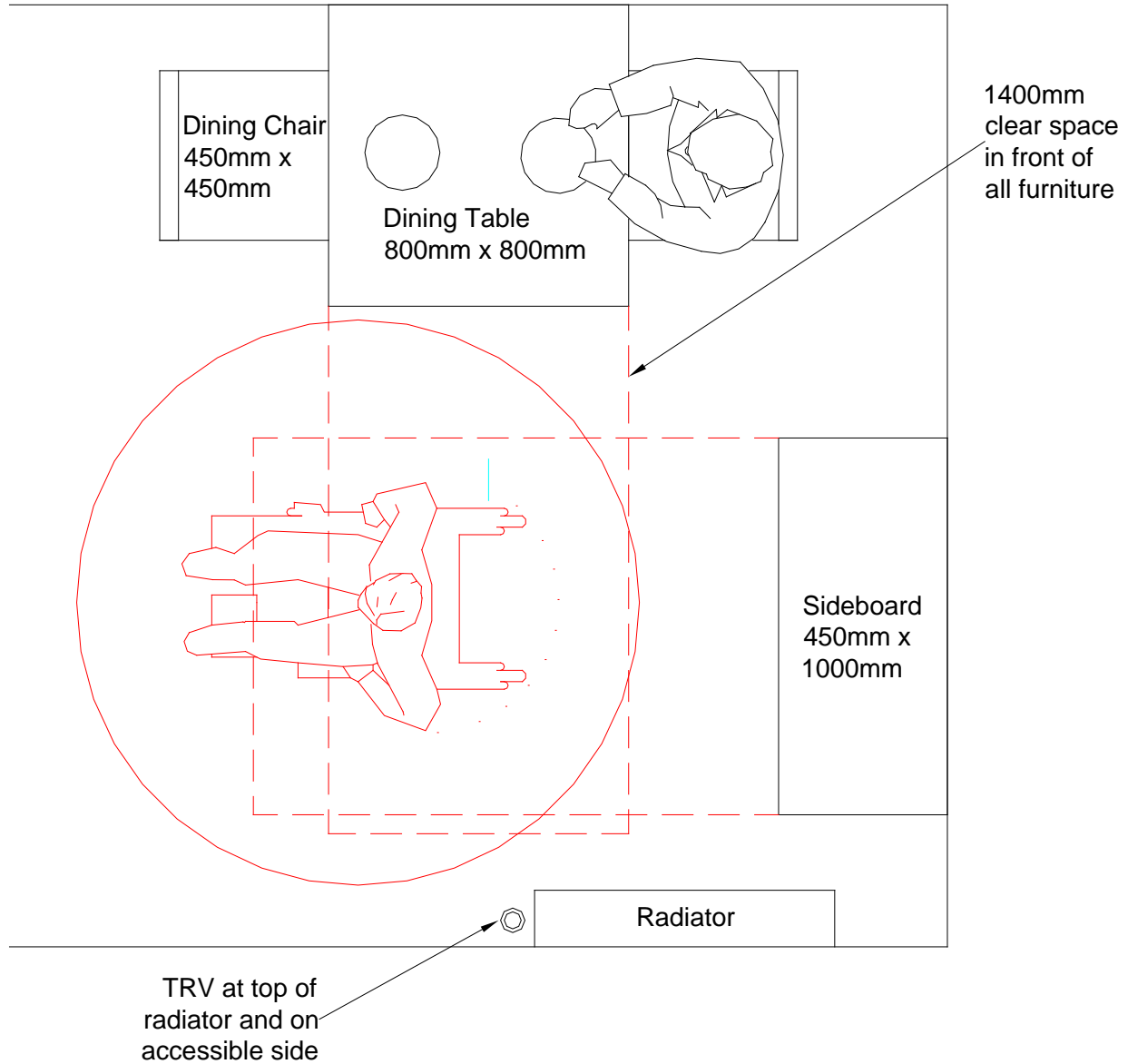


Occupancy & Storage Volume	
1 Person	= 1.3 Cubic meters
2 Person	= 1.5 Cubic meters
3 Person	= 2.0 Cubic meters
4 Person	= 2.1 Cubic meters
5 Person	= 2.2 Cubic meters
6 Person	= 2.4 Cubic meters

**Kitchen 1-6 person, minimum 9m<sup>2</sup>**

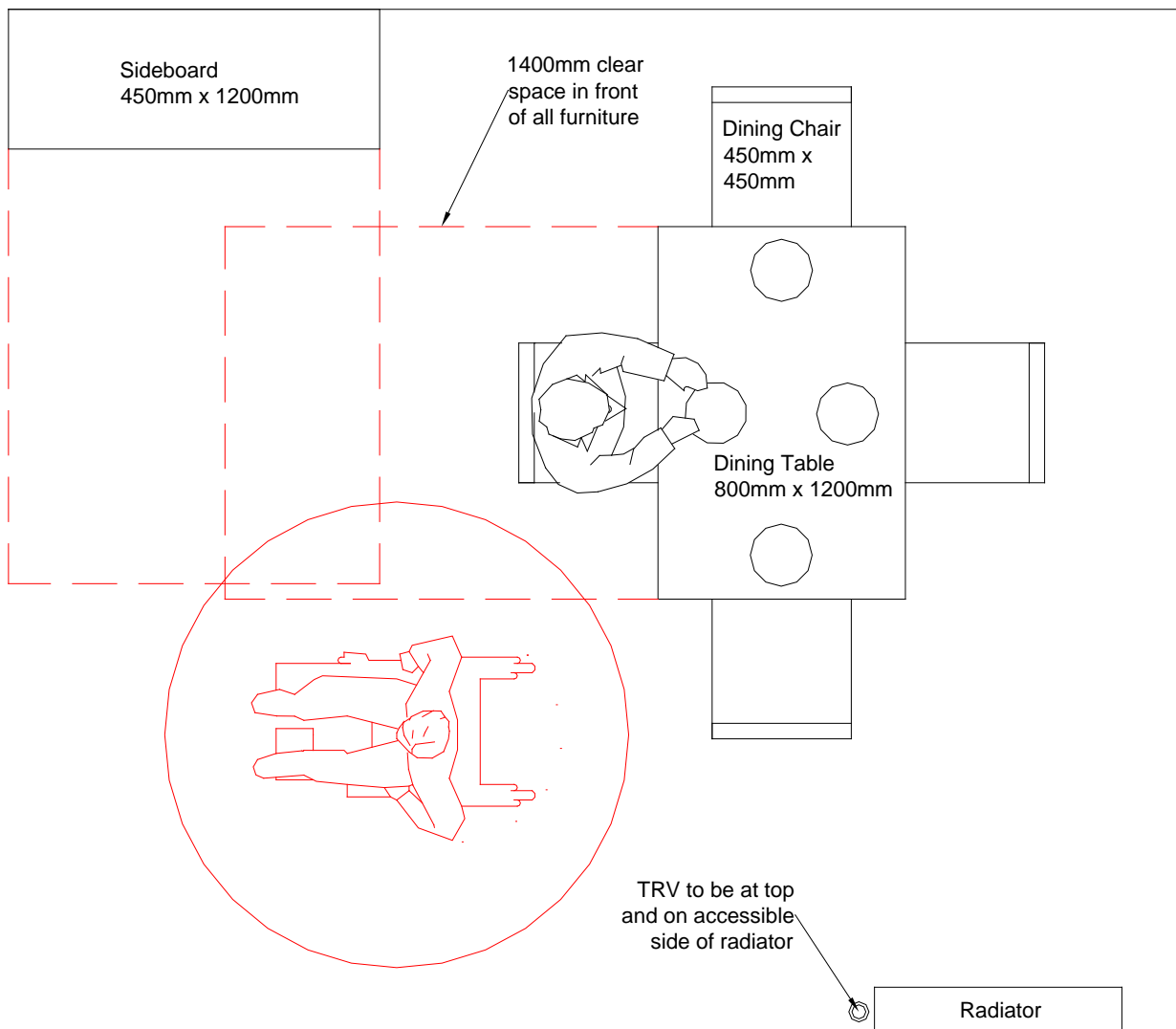
Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6





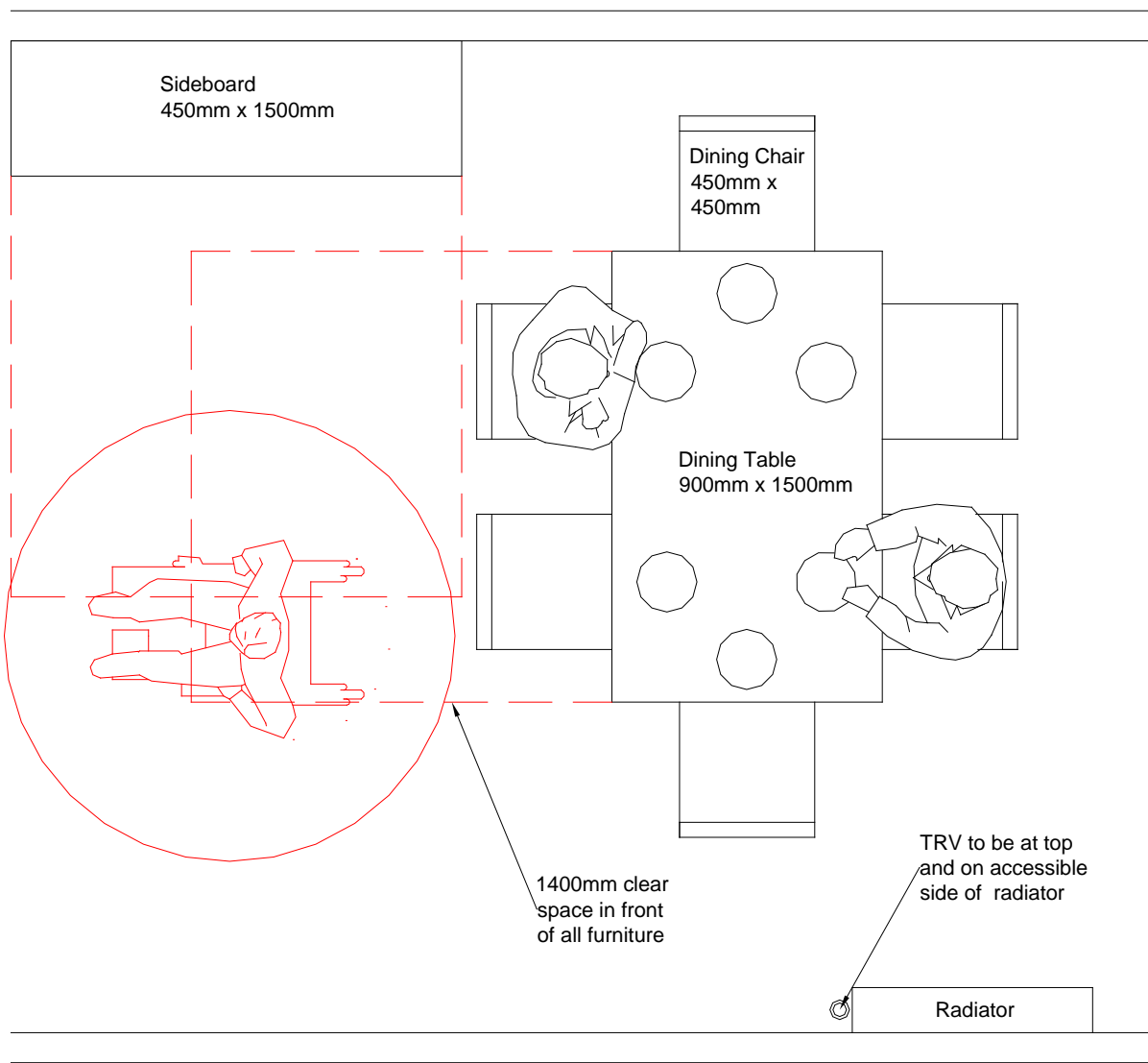
Dining space 1-3 person, minimum 6m<sup>2</sup>

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



Dining space 4 person, minimum 13m<sup>2</sup>

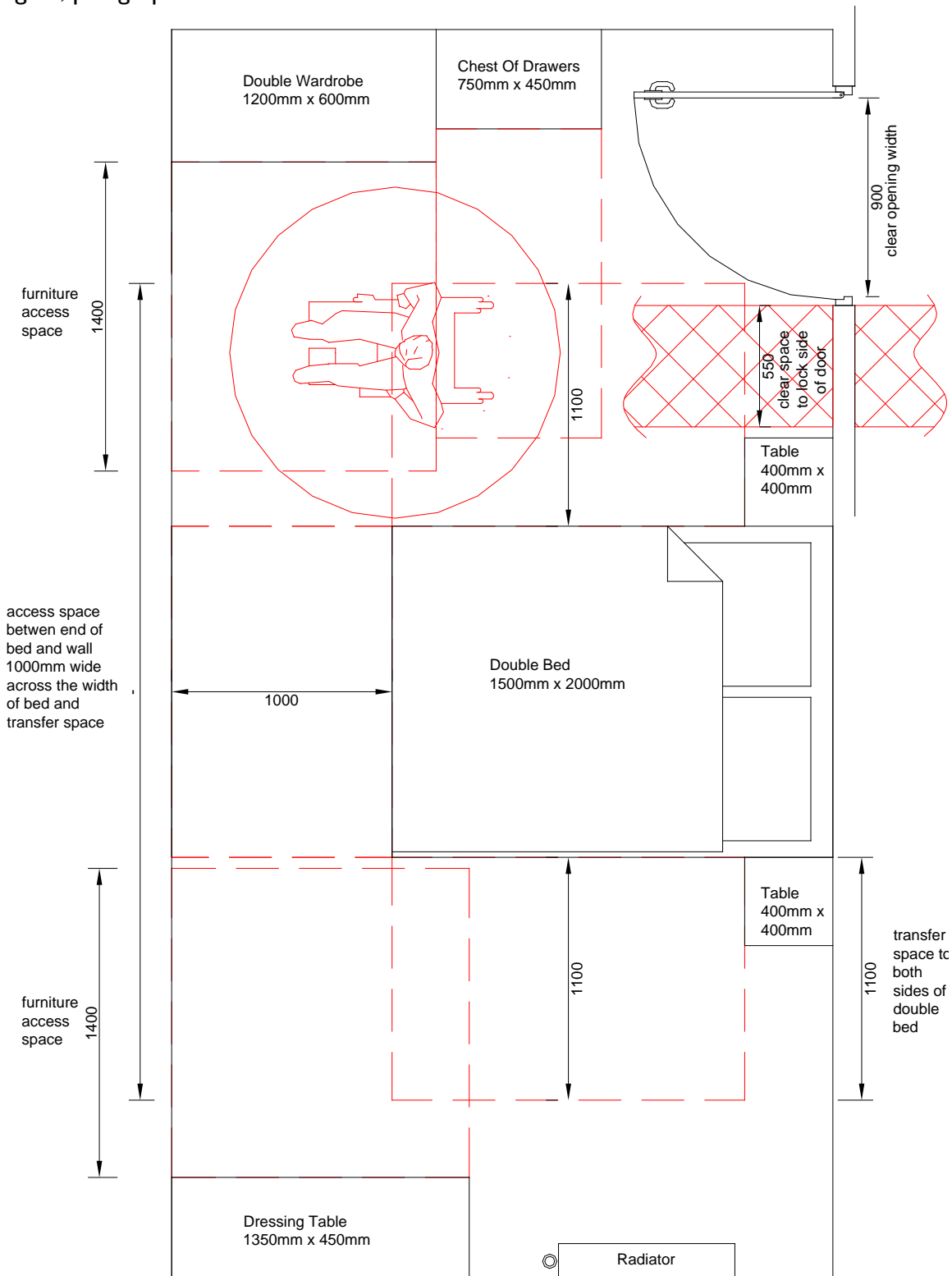
Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



Dining space 5-6 person, minimum 14m<sup>2</sup>

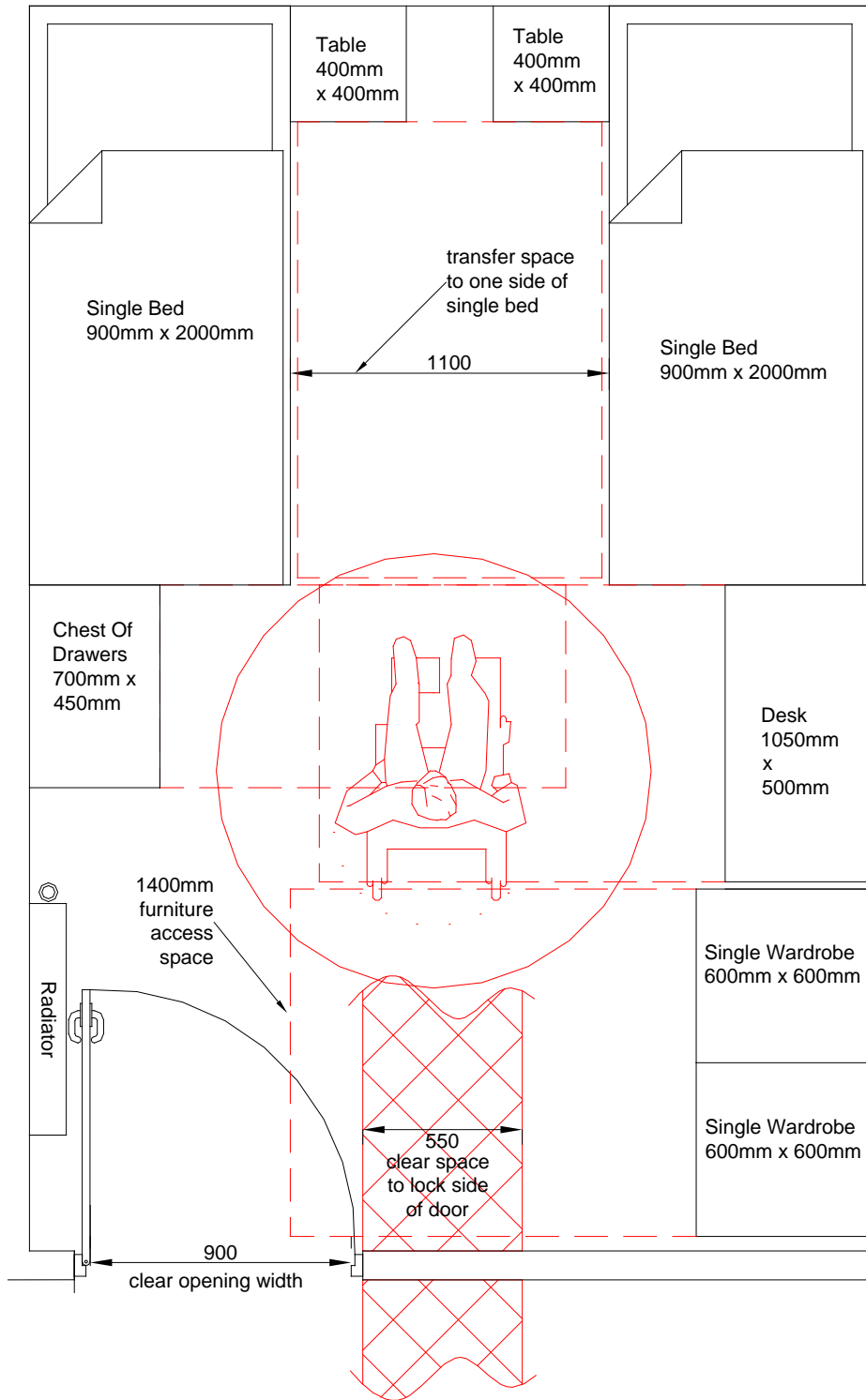


Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



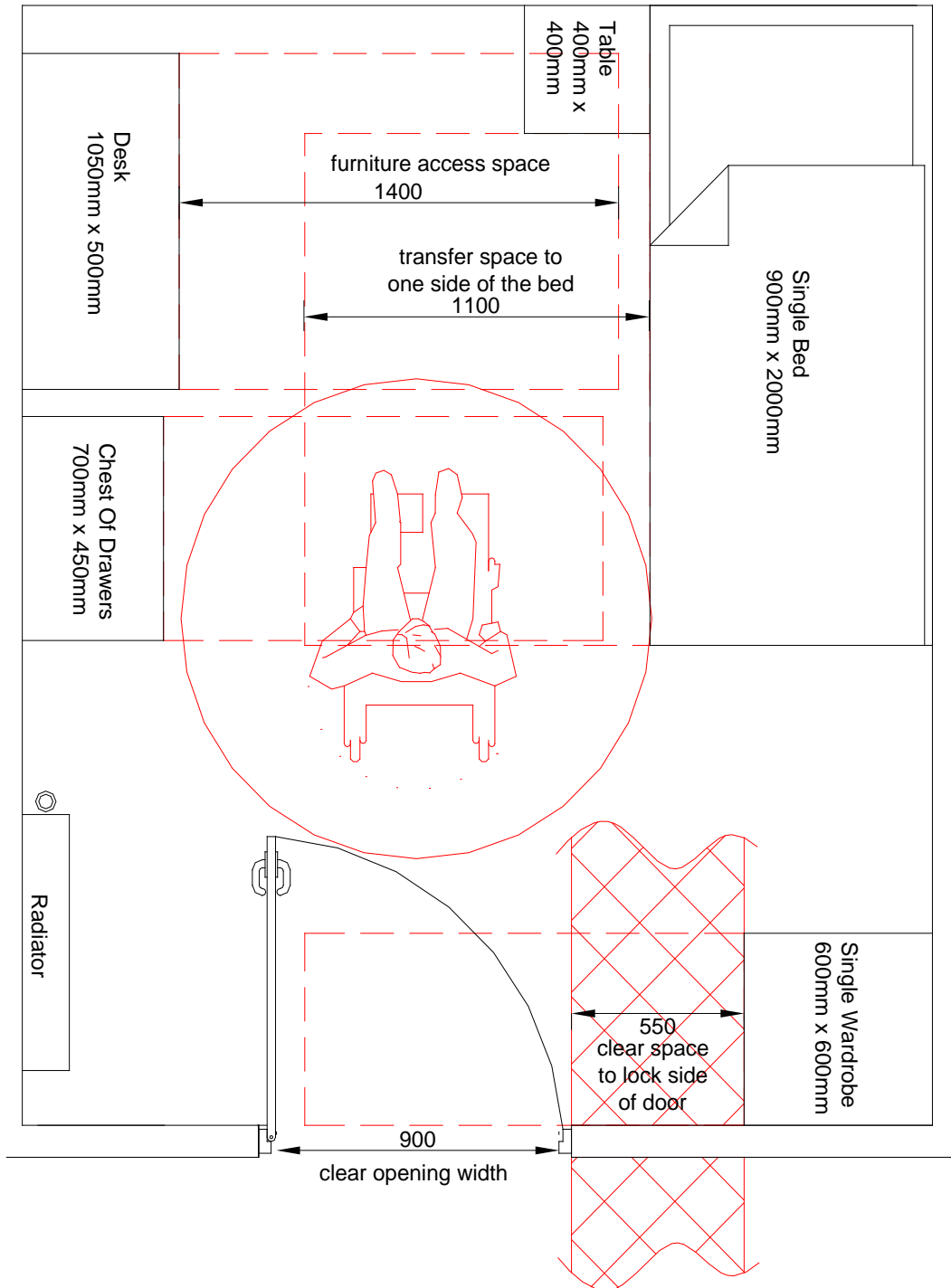
Double bedroom, minimum 17m<sup>2</sup>

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



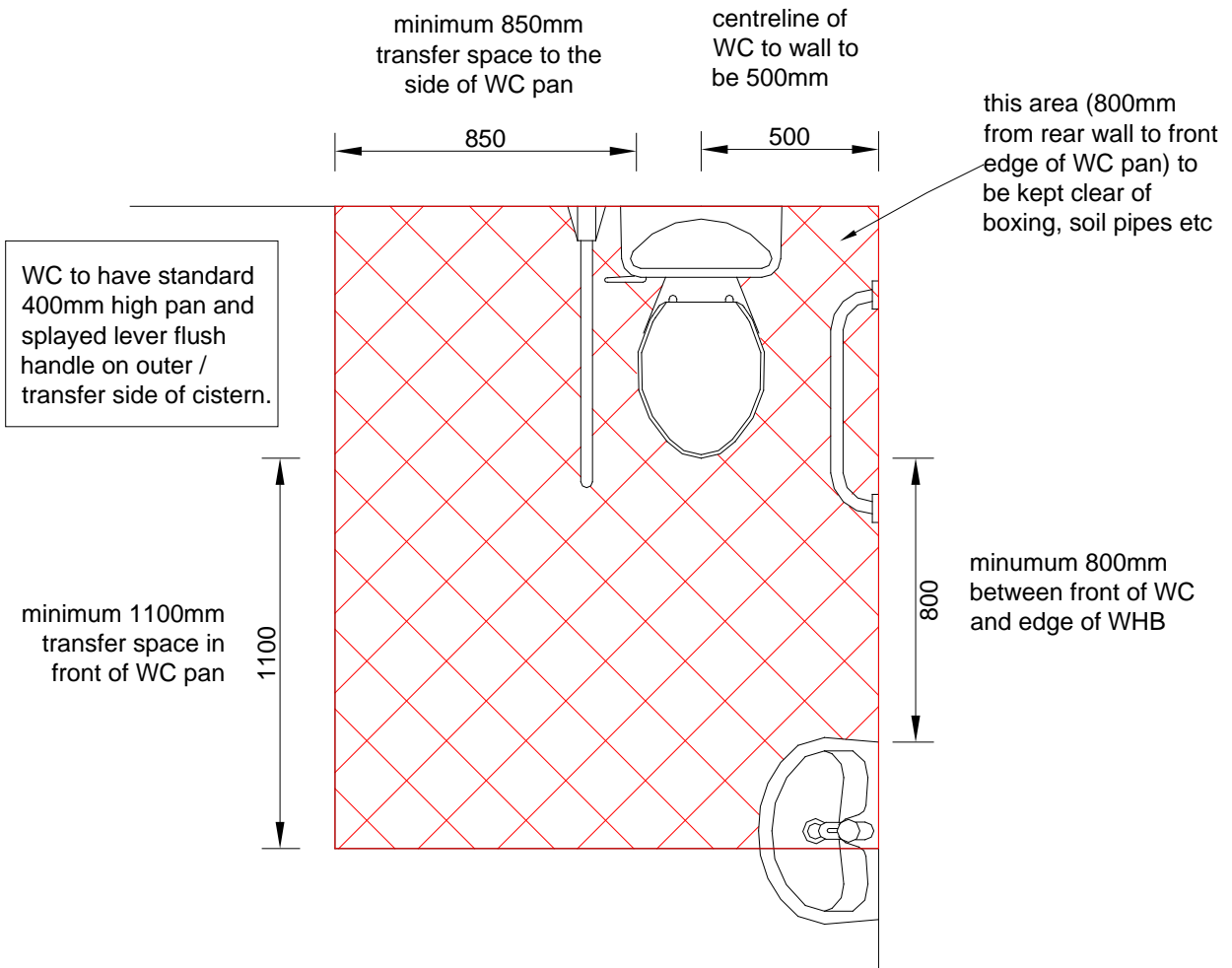
Twin bedroom, minimum 12m<sup>2</sup>

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6

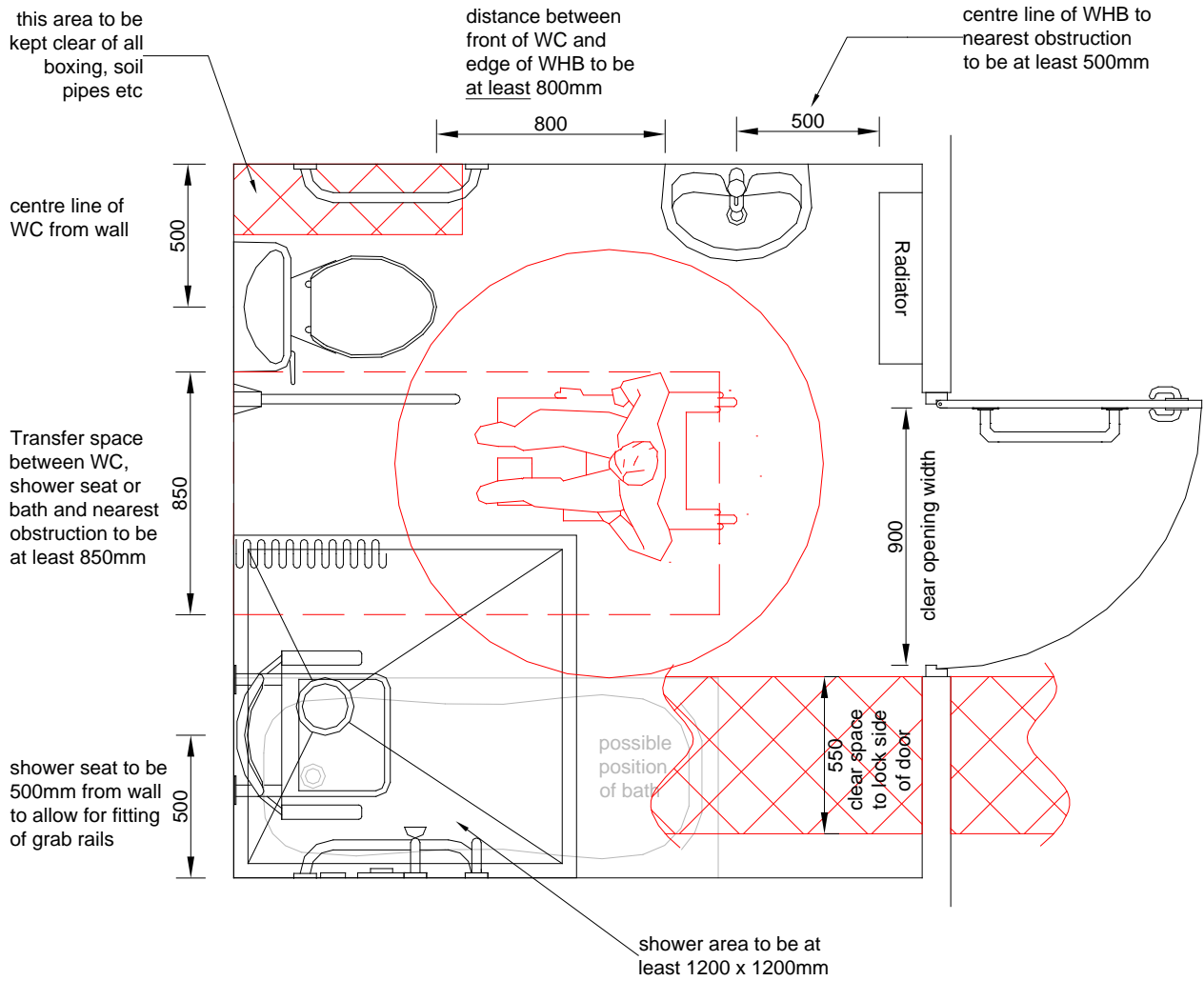


Single bedroom, minimum 9m<sup>2</sup>

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6

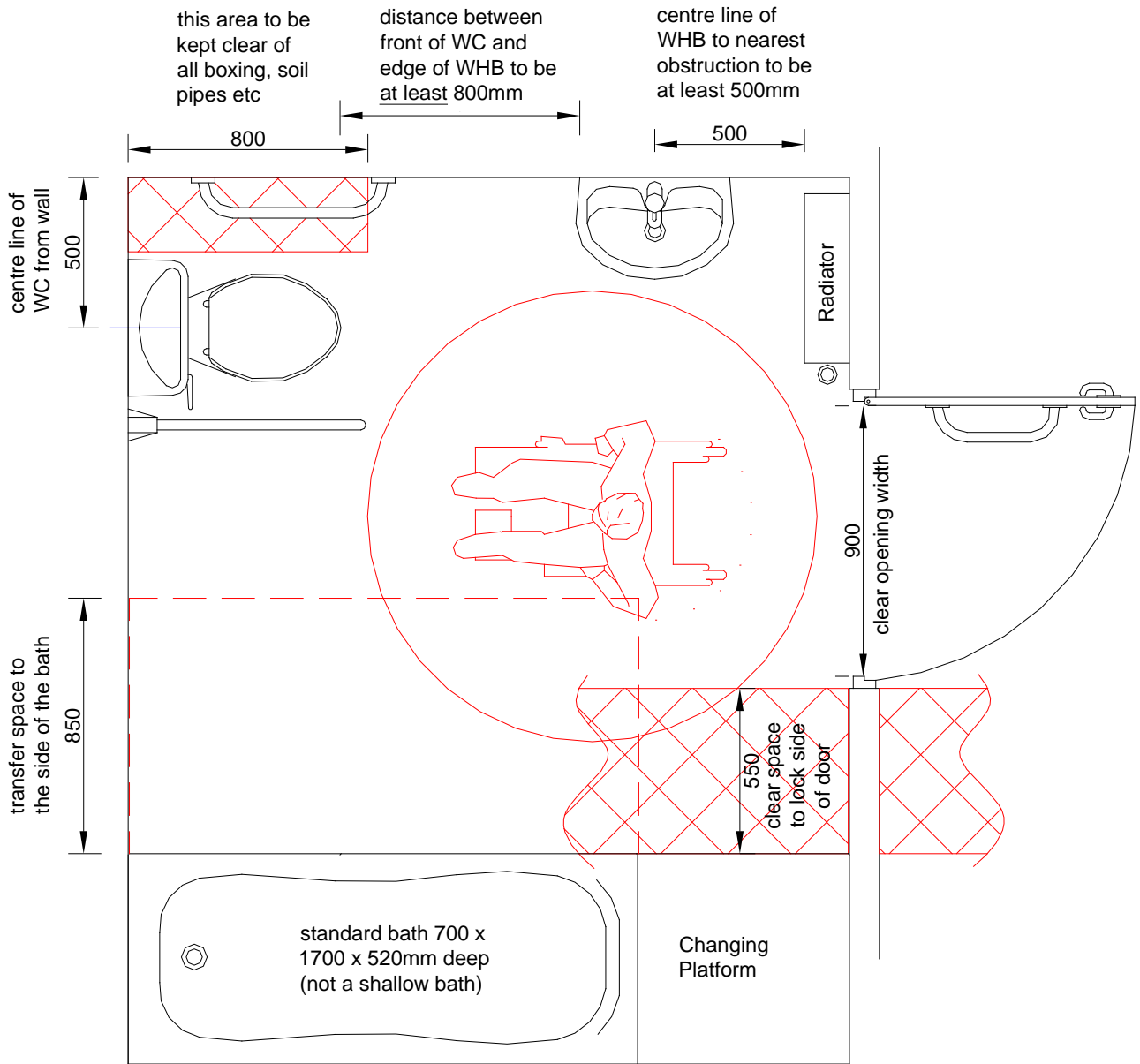


Specific requirements for access to the toilet and basin



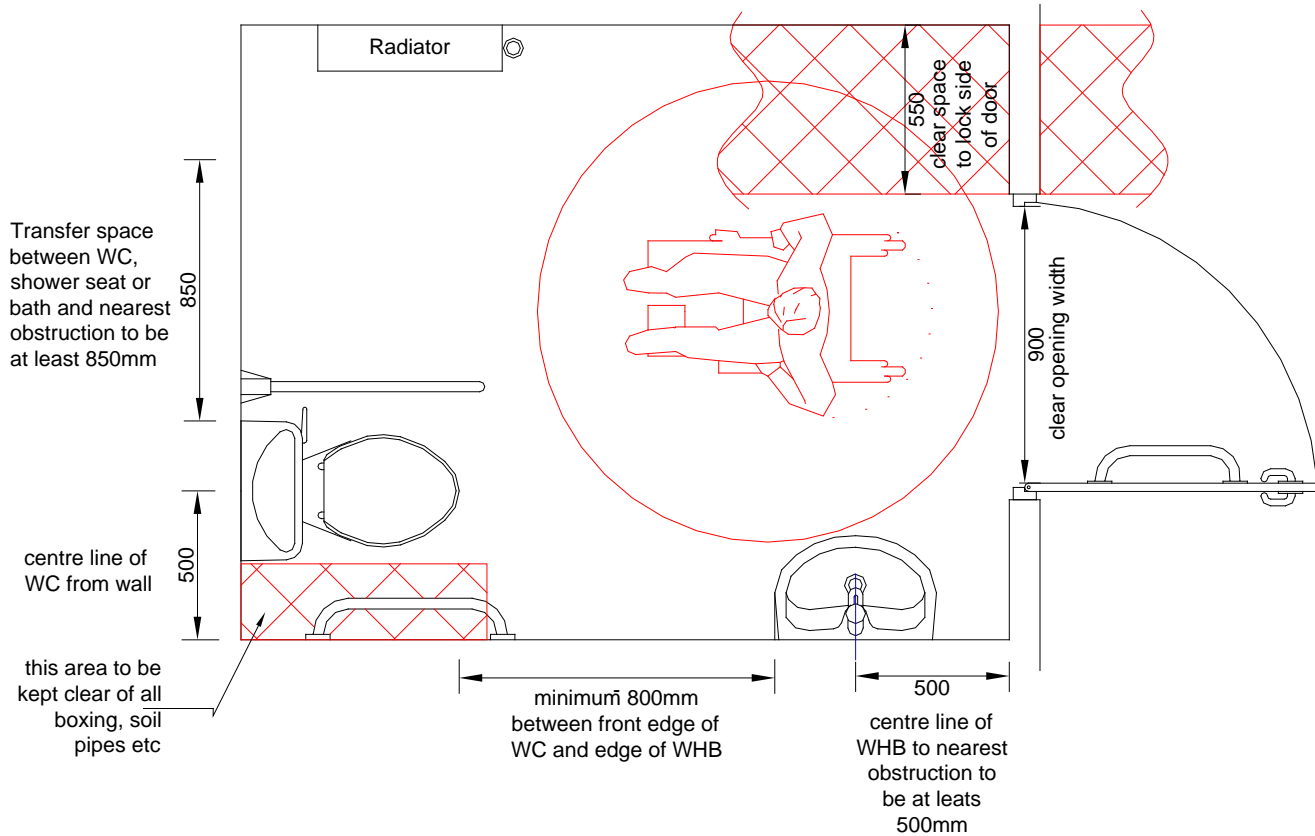
### Shower room, minimum 6m<sup>2</sup>

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



**Bathroom, minimum 7m<sup>2</sup>**

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6



## Toilet, minimum 5m<sup>2</sup>

Plans are for illustration only, they are not intended as templates for meeting requirements. Refer to page 2, paragraph 6