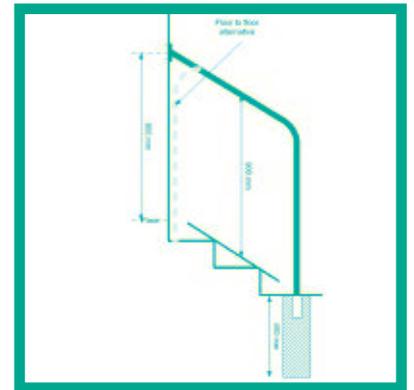
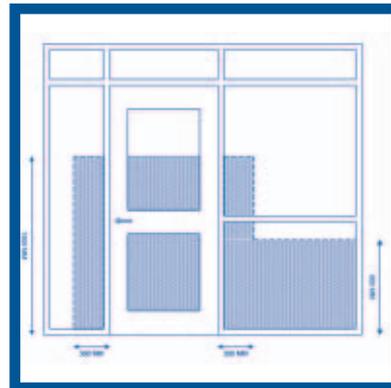
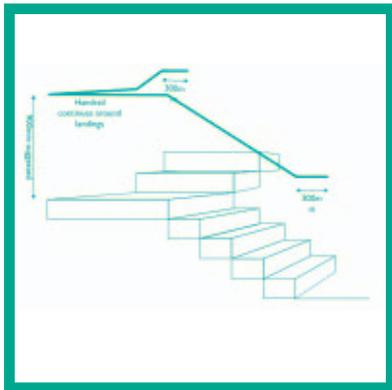


# Minor adaptations without delay

## Part 2: Technical specifications



## **Minor adaptations without delay - A practical guide and technical specifications for housing associations**

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# Minor adaptations without delay

## Part 2: Technical specifications

College of Occupational Therapists  
Housing Corporation

## Introduction

This technical specification accompanies the practical guide '*Minor Adaptations without Delay*'. The guide has been produced by the College of Occupational Therapists and the Housing Corporation to reassure housing associations that some minor adaptations for older and disabled tenants may safely be carried out without the need for an occupational therapy visit and that this may be very beneficial in allowing a swifter service.

This technical specification has been compiled to give Housing staff and surveyors a quick reference document on general guidelines when installing minor adaptations mentioned in this report. The items included are those where there was a wide consensus amongst housing officers, occupational therapists and tenants that they were suitable for installation without professional assessment.

We recognise that all tenants are different and are the experts in their own problems and needs. These specifications therefore need to be used as a technical resource in consultation and partnership with the tenants themselves.

The staff using this guide must remember that these are general specifications and will not be suitable for all dwellings or individual tenants. For further clarification on building construction, please consult your in-house building surveyor or, if the tenant's needs appear to be more complex than the initial request, refer to the local Social Services department.

**This technical specification has been designed and written by Mark Simmons Powell, Head of Asset Management of Habinteg Housing Association, and Kate Sheehan, Independent Occupational Therapist.**

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# 1. Visual Impairment

## 1.1 Staircase applications

Minor amendments to the colouration of staircases on the approach to and within the homes of tenants with sight problems can improve their safety and ease of use. The options available will largely depend on the construction and location of the stairs and whether there are any pre-existing floor coverings and, if so, are they the responsibility of the landlord or tenant.

The main consideration is the introduction of contrast at key points, typically stair edges, the string line, skirting around landings and handrails so that they stand out from the background and define the borders of the steps. This can be achieved by using contrasting colours or strong variations of shades.

At its simplest this can be accomplished by selective painting to bare concrete. This should be specified to avoid gloss finishes (as these may cause glare). Step edges are best treated with a narrow strip of paint (say 50mm width) using proprietary floor paint. In external locations or wet areas it may be worth adding carborundum grit to the paint for greater slip resistance.

Where replacement of the landlord's staircase floor covering (vinyl or carpet) is being considered, this should be done to ensure a clear contrast between the colour of the floor covering and any pre formed nosing that may be in situ. Where floor coverings are being replaced this may also offer an opportunity to include some tactile element to assist visually impaired tenants on stairs. This can be accomplished by introducing variations in the material used on the floor on the approaches to steps and on landings to provide tactile clues and warnings to people of their position in relation to the steps.

*Further advice and good practice on making minor adjustments within the homes of people with sight problems may be found at:*

*<http://www.rnib.org.uk/xpedio/groups/public/documents/code/InternetHome.hcsp>*

## 1.2 Provision of external lighting

Partially sighted people can benefit from improvements to the external lighting of their homes. This may aid them in the task of unlocking and entering their home and may also provide transitional lighting between the inside brightness of the home and the relative darkness outside (the eyes of some people with sight problems take longer to adjust to changing light levels).

Choice of lighting and positioning will vary depending on the individual circumstances of the person for whom the work is being carried out. However it may be worth taking account of the following considerations:

- Provide the light with a PIR detector for automatic activation.
- Specify frosted "opal" lamps rather than clear as they provide a more comfortable light and produce softer edges to shadows.
- Installation of low energy or fluorescent lamp holders will benefit the tenant through reduced fuel costs and will also mean that they need to access the light fitting less often to renew lamps, due the greater longevity of such lamps.
- Lamps need to be appropriately sized to ensure that the lighting level is no greater than that found immediately on entering the property.

As with all electrical equipment, new lighting should only be installed by competent electricians registered with the NICEIC. Installation of the equipment should be in accordance with the manufacturers' instructions and comply with BS.5671 and, following installation, be confirmed as such with an electrical installation certificate.

The benefits of improving external lighting can be enhanced by also considering the decoration of the front entrance. Consideration should be given to repainting the door and/or frame to ensure there is good colour contrast between each of them and the surrounding surfaces, and with any door furniture such as lock escutcheons and door handles.

## 2. Hearing Impairment

### 2.1 Flashing doorbells

Visual indicators for domestic mains-electricity-powered doorbells are available as items of proprietary equipment termed 'silent dimming doorbell alarms'. When selecting the equipment, a range of options is available. However, choosing one that will indicate that the door bell is being activated by flashing all the house lights on during day time and flashing them off at night time will provide the greatest cover within the home. To provide the tenant with the maximum flexibility, choose a unit that allows the user to turn the function on and off.

These units are an electrical appliance and as such should only be installed by competent electricians registered with the NICEIC. Installation of the equipment should be in accordance with the manufacturers instructions and comply with BS.5671 and, following installation, be confirmed as such with an electrical installation certificate.

*Silent dimming doorbell alarms along with more detailed advice on services for the deaf and hard of hearing may be sourced through the RNID website*  
<http://www.shop.rnid.org.uk/store>.

### 2.2 Smoke alarm alerts

Smoke alarm alerts provide an alternative sensory warning to deaf and hard of hearing people that a smoke alarm has been activated. Typically, this warning is given by a vibrating pad that is positioned in the bed (under the mattress or pillow) and a strobe light that flashes when smoke is detected. In addition, the facility of the audible warning should be retained to alert other members of the household in the event of a fire.

Propriety equipment is available that can either be linked into existing mains powered smoke detectors or be used as part of a new installation of smoke detectors. Whether connecting to existing or providing an all-new installation, it is important to ensure that the detectors comply with BS.5446.

*Specification for components of automatic fire alarm systems for residential premises, Part 1 and that they are suitably sited i.e.:*

- At least one detector for each storey of the dwelling and located in circulation areas such as halls and landings.
- The detectors are interconnected and fitted in positions to allow easy access for maintenance and cleaning.
- Positioned within 3 metres of bedroom doors.
- Sited away from areas that might cause false alarms i.e. bathrooms.

Operation of the vibrating pad and strobe alarm is via a control box which should be wall mounted near to the deaf or hard of hearing person's bed and ideally should be mains powered, with back up provided by rechargeable batteries and hard wired to the smoke detectors. It is highly recommended that the system employed should have a fail-safe function so that, in the event of a fault occurring, a visual signal is given to warn the user of the problem.

This equipment is an electrical appliance and as such should only be installed by competent electricians registered with the NICEIC. Installation of the equipment should be in accordance with the manufacturers instructions and comply with BS.5671 and following installation, be confirmed as such with an electrical installation certificate.

The effectiveness of any fire detection equipment relies on regular routine maintenance and cleaning. It is therefore essential that the tenant is fully briefed on how to service and test the equipment in their home and provided with easy to understand written instructions.

*Smoke alarm systems along with more detailed advice on services for the deaf and hard of hearing may be sourced through the RNID website* <http://www.shop.rnid.org.uk/store>

### 3 Rails

#### 3.1 Main entrance support rail

Assistance for people ascending/descending steps to enter their home can be given by providing either “D” grab rails or floor to wall handrails to one or both sides of the entrance. Both are acceptable, however the handrail option should always be used where there is a significant height difference between the internal floor level and the external path level (anything in excess of 360mm elect for handrails). For comfort, select a grab rail with a diameter of between 30-45mm that stands clear of the wall by 45-65mm.

Do ensure that the tenant is fully consulted on what is being proposed. If they have any concerns that the proposed work will not offer them adequate support, do refer them to Social Services for a more thorough assessment. In either case, consider supplying rails with a self finished easy clean coating, which provides a good colour or tonal difference to the background.

#### 3.2 Grab rails

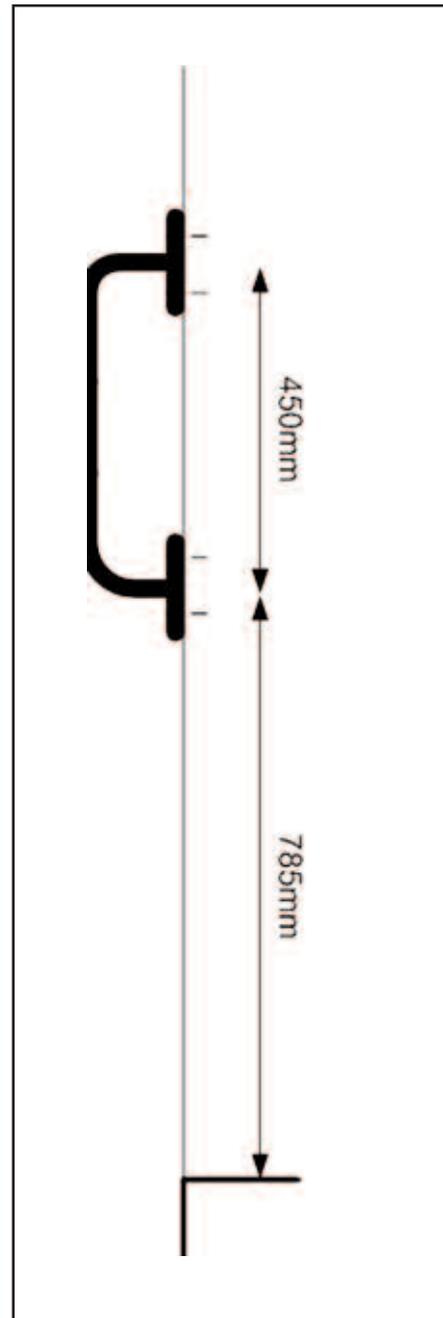
Do consult the tenant on their preferred siting of the grab rail(s). However, the illustration provided does give workable dimensions to use as a general rule.

Ideally the grab rail(s) should be sited to allow fixing to masonry with 3 x No 10 (minimum 50mm) plugs and screws at each end. Consider using brass or chromium-plated screws to avoid unsightly rust staining.

Where fixing to a timber doorframe is unavoidable, it should be assessed as to whether the frame section is robust enough to carry a grab rail. Using “flat” lugged grab rails, consider bolting directly through the frame with M6 bolts, rather than screwing into it. Bolting through a mild steel spreader plate on the reverse side of the frame would also contribute to its strength.

Fixing to PVCu frames should be avoided, as they are unlikely to have the necessary

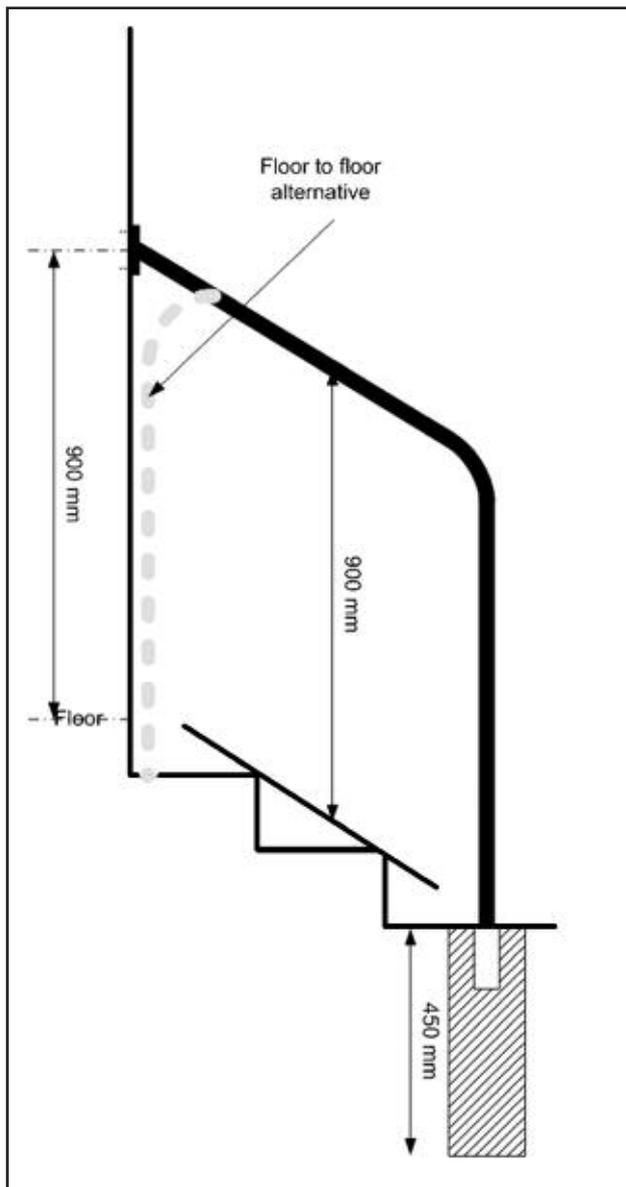
internal steel framing in the right location to adequately support grab rail fixings. If there is no satisfactory alternative, consider a floor-to-floor handrail instead.



### 3.3 Newel rails

Preformed steel grab rails known as newel rails and/or twister rails are designed to provide a grab rail that turns through 90° around a stair newel post. These products are supplied as stock size and are handed to suit either a clockwise or anticlockwise turning step; therefore care needs to be taken when specifying the choice of rail. Commonly fitted with fixing flanges, they will require 3 No 10 woodscrews at each end.

### 3.4 External Handrails



Use a minimum M10 expansion bolts to secure the rail at the wall end. If the external paving is cast in situ concrete, the use of expansion bolts will also suffice. For other

pre-cast or formless paving, the handrails should be secured by either having an extended leg cast into concrete or alternatively being seated into a propriety socket that is cast into a concrete pad (i.e. Kee Klamp “Advantage” modular system).

Due to the greater leverage potential offered by the length of the handrail, it is inadvisable to attempt to secure the upper end of the handrail to anything other than a masonry wall. Where no masonry fixing point is readily available consider using a floor-to-floor handrail instead.

### 3.5 Stair handrails

Handrails to one or both sides of an internal flight of stairs may be provided to suit the user’s needs. Where retrospectively fitting a handrail, do consider applying the minimum standards of Approved Documents M and K to comply with the requirements of the Building Regulations.

#### Handrail:

Consider using a 50mm x 50mm mop head cross section softwood, sited to run continuously from the bottom to the top flight, to include the perimeters of intervening landings and across window openings. Where space allows, the handrail should be allowed to continue past the top step by up to 300mm.

Handrails should be positioned to follow the pitch of the staircase, at a height to suit the user’s needs but which shall be between 900mm and 1000mm measured vertically from the pitch line of the steps. Any joints in the handrail must be sited at changes of angle or intersections (i.e. at landings).

#### Handrail support:

Stair handrails should be supported at a maximum of 1000mm centres and at no greater than 150mm from either end of the handrail and or any joint in the handrail. Support should be provided by 63.5mm silver anodised handrail brackets using 3 screws per bracket.

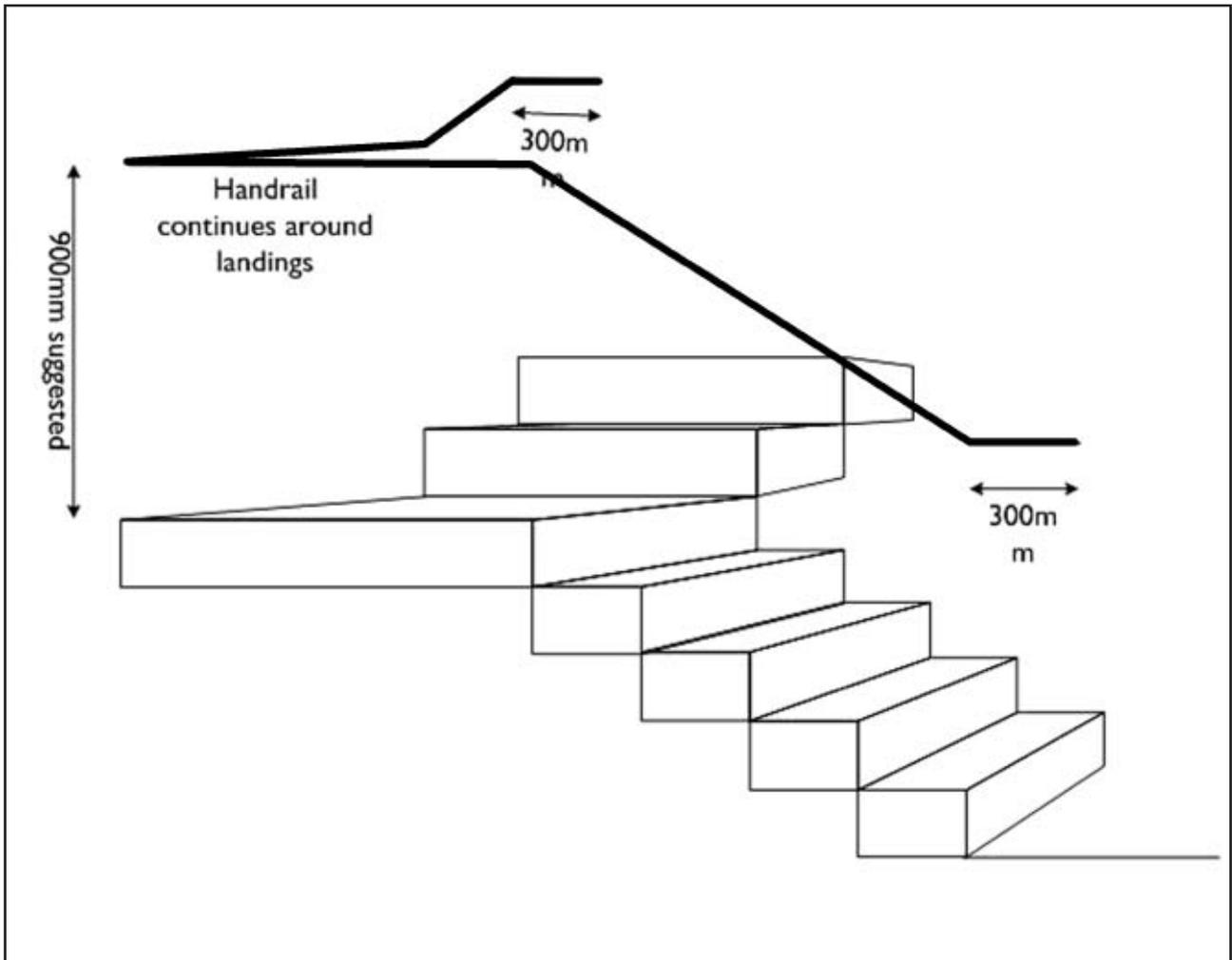
Fixing of handrail brackets should be directly onto a 144mm x 19mm (finished size) patruss or backing board out of either softwood or plywood (good one side). The patruss should have its 2 external corners well rounded and run the full length of the handrail. Fixing of the patruss should be appropriate to the wall type encountered:

1. When fixing to masonry, the patruss should be secured at centres not exceeding 900mm using plug and screw fixings of not less than size 8 x 63mm.
2. When fixing to timber stud walls, the patruss should be twice secured at each vertical timber stud and be supported by a minimum of 3 timber studs.

3. When fixing to dry lined walls the patruss should be secured at centres not exceeding 900mm into solid softwood spacers cut into the plasterboard with the spacers plugged and screwed to the underlying masonry.

**Finishes:**

Fully rub down the handrail and patruss to remove all sharp edges and if the tenant has a visual impairment do consider decorating the new handrail in a contrasting colour to the surrounding surfaces, for all installations use a semi gloss or vinyl silk paint to complete the work.



## 4. Access

### 4.1 Internal door threshold ramps

Internal thresholds on both internal circulation doors and at the rear face of external doorframes can impede the passage of wheelchair users. Traditionally internal threshold bars were fitted as integral parts of the doorframe to form a carpet-edging strip and ensure that the door gave clearance to the floor covering.

The simplest solution may be to cut this section out altogether, particularly if the doorframe has a simple profile that is easy to trim back to. Where this is not practicable and a small ramp is needed, do specify a hardwearing fillet of hardwood i.e. mahogany or seasoned oak. Avoid using a fillet that diminishes in thickness to nothing as the thin edge will split and be a hazard, instead have a leading edge of between 3mm and 5mm which has been bull nose rounded. Secure the ramps in position using a minimum of 3 fully countersunk woodscrews (ideally brass) with plugging to solid floors as necessary. Consider a linseed oil finish to the wood rather than varnish or gloss paint, as this will retain the timbers inherent non slip qualities.

Prior to carrying out this work, do advise the tenant that this may involve cutting back their existing floor coverings. Where this is necessary do require that it is done sympathetically and that gripper rods for carpets, if existing, are resited.

### 4.2 Improve access and widen sole pathway to main entrance

Where widening of paths is required, it will almost invariably be to improve the access of a wheelchair user to their home, the specifics of how it is done will vary widely due to local factors such as space, existing gradients and existing materials. Whilst acknowledging the need to work within the constraints imposed by the location, the objective should be to provide a pathway that is planned in terms of the wider principles of good access design. With this in mind, the opportunity should be taken to assess whether simply widening an

existing path is the best option available and consider the possibility of resiting and rebuilding the path. Whichever option is adopted the key provisions should include the following aspects:

- The path should be 1200mm wide and ensuring at least 900mm remains uninterrupted by obstacles such as fall pipes.
- Where space allows, form a 1500mm x 1500mm paved area by the front entrance door to facilitate the manoeuvring of a wheelchair user entering the home.
- Where kerbs are provided, these must be flush with the path surface.
- The gradient of the path along its length should not exceed 1:20 and should avoid any abrupt changes in gradient or level.
- If possible crossfalls should be avoided or kept to a minimum that does not exceed 1:40.
- Ensure the path provides a common colour and texture along its length and width (particular attention will be required where widening rather than replacing). The exception to this is where there is a potential obstacle or hazard where textured hazard warning paving may be considered.
- Aim to use materials that give a good colour/tonal contrast to any adjacent hard-standings or walls.

*Although not currently a retrospective requirement, Approved Document M section 1, which supports Part M of the Building Regulations, provides clear compliance information on external access to buildings.*

### 4.3 Door intercom

Door intercoms linked to an electronic lock release can considerably improve the independence and security of people with mobility problems. A wide range of suppliers and installers in a competitive market place now offers door entry solutions and the following points may be of assistance on deciding on what to select:

- Consider having 2 apartment stations, one sited in the users bedroom and

positioned so that it can be reached from the bed and one sited in the lounge/sitting room close to the main seating area.

- Site the apartment station so that the main control buttons are at 1050mm above the floor.
- The apartment station should be provided with a privacy button.
- Ideally the external door panel should have a stainless steel face with the control box chased into the surrounding masonry so that the faceplate sits flush with the wall.
- Site the door panel so that a visitor in a wheelchair is able to speak into the panel and push the call button simultaneously.
- The call button on the door panel should be at 1050mm above the external path level.
- The tenant may additionally benefit from the inclusion of a lock release switch conveniently sited in the hall approaching the entrance door.

It is likely that a new lock will need to be provided with the new door entry system. This should be compatible with the door entry equipment and the type of door and frame; typically a 5-lever rim automatic deadlock will be the most appropriate for retro fitting. Choose one that will allow escape from the property without a key.

One factor to note is that there is currently no effective door entry system that operates on doors with multi point locking. Where the existing door is fitted with multi point locks and there is a need for a door entry system, the compromise is to fit a new rim lock and rim lock release and retain the multi point lock. This will provide the tenant with the choice that will allow the added security of 3 point locking, say at night, whilst relying on a single lock controlled by door entry during the day.

As with all electrical equipment, a new door entry system should only be installed by competent electricians registered with the NICEIC. Installation of the equipment should be in accordance with the manufacturers instructions and comply with BS.5671 and, following installation be confirmed as such with an electrical

installation certificate. As the dwelling's security relies on the system, it should be configured so that the electronic lock release fails in the locked position should there be a power outage or cut.

#### **4.4 Reposition door handle**

Door furniture should be within easy reach of the user and, where possible, usable with one hand to open and close the door.

Re-siting existing lever and lever-lock furniture at 1050mm high above the floor will provide a relatively convenient height for a wide range of users. Replacing short-bodied mortice latches/locks with one with a longer body (75mm or greater) would have the benefit of providing greater clearance between the lever handle and keyhole and the doorframe, which will make their operation easier and safer.

Fitting a horizontal grab bar at approximately 900 mm above floor level on the closing side of the door may provide assistance to the user in closing the door behind them.

If the door furniture is being renewed as a part of this work, do consider having it supplied in colours that contrast with the door as an aid to the users with visual impairment.

## **5. Kitchens and bathrooms**

### **5.1 Window opening equipment**

Functionally, there is little difference between manual and electrical window openers. On the basis purely of cost to install and cost in use, therefore, the manual opener will usually be the favoured choice. The exception to this concerns those tenants who have limited manual dexterity or strength. In these cases, an electrical opener is the clear choice. Both types of openers are available in a number of styles to suit different types of opening light and material, therefore the manufacturers information sheets will need to be consulted prior to detailed specification.

Prior to installation it is worth considering the following factors:

- If possible, fit the opener to a small high-level opening light, as this will be more secure when open.
- Do specify an opener that allows the user to choose whether the window is partly or fully opened.
- Do site the equipment of the opener where it may be easily serviced.
- Ensure that the opening gear can be disengaged from the window for maintenance.
- Consult the user on the best height for the window controller; however, consider 1050mm as a workable default.

As with all electrical equipment competent electricians registered with the NICEIC should only install the fitting of electrical window openers. Installation of the equipment should be in accordance with the manufacturers instructions and comply with BS.5671 and following installation, be confirmed as such with an electrical installation certificate.

## 5.2 Kitchen lever taps

Quarter turn lever taps are now available from a variety of suppliers. For most people's circumstances, a lever between 75mm and 85mm will suffice, but do consult the tenant prior to specifying length. Whilst longer levers are easier to hold and turn the shorter length suggested is often better as it causes less obstruction and offers easier access to the tap and sink. When positioning the levers, do set them at right angles to the spout as this also offers less obstruction to the tap and sink. Where adapting a kitchen sink with pillar types, do consider consulting the tenant on the benefit of replacing them with a swan necked kitchen mixer tap fitted with quarter turn lever taps.

Do consult the tenant on whether the disability that raised the need for lever taps affects their ability to sense temperature variations. If there is any doubt, consider installing a thermostatic mixing valve with

the hot tap to eliminate the risk of scalding. These valves are relatively easily installed below the sink and usually come factory preset to deliver hot water at temperatures no greater than 43°C.

## 5.3 Kitchen cupboard door handles

Kitchen unit doors fitted with knobs or recessed pull-strips may present a problem to some tenants that can be readily addressed by retrospectively fitting "D" pull handles to the doors. Consider fitting stainless steel or chrome finished handles, as these will tend to compliment existing colour schemes. Handles should be of a bolt-through fixing with a round head bolt internally. Site the new handles in consultation with the tenant to best suit their requirements. However, if the door previously had a knob, do consider reusing its fixing point as one of the "D" handles fixing points to mask any unsightly marks.

For conformity do ensure that each door receives the new handles and avoid the inclination to only address a handful of, what are viewed as, key kitchen units.

## 5.4 Bathroom lever taps

Quarter turn lever taps are now available from a variety of suppliers. For most people's circumstances a lever between 75mm and 85mm will suffice however do consult the tenant prior to specifying length.

Consult the tenant on whether the disability that raised the need for lever taps affects their ability to sense temperature variations. If there is any doubt, consider installing a thermostatic mixing valve with the hot tap to eliminate the risk of scalding. These valves are relatively easily installed below the bath and usually come factory preset to deliver hot water at temperatures no greater than 43°C.

As an alternative, consider replacing existing individual taps with a thermostatic bath mixer tap with automatic shut off if temperatures exceed a safe maximum.

## 5.5 W.c. lever flush handles

Where the existing cistern of a w.c. suite is not “handed” i.e. there is a dummy capped hole available for the flush handle, then the handle can be moved to suit the tenant with little disruption and relatively low cost.

If the existing system is handed, then the transferring of the lever from one side to the other would entail replacing the cistern and possibly the whole w.c. suite. It would therefore, in these circumstances, be appropriate to question whether the disruption and expenditure is of a reasonable level for the benefits being gained. As a compromise, and in consultation with the tenant, consider retaining the existing w.c. cistern and accepting the handing but replacing the lever with a longer “spatulate” model that requires less effort to operate.

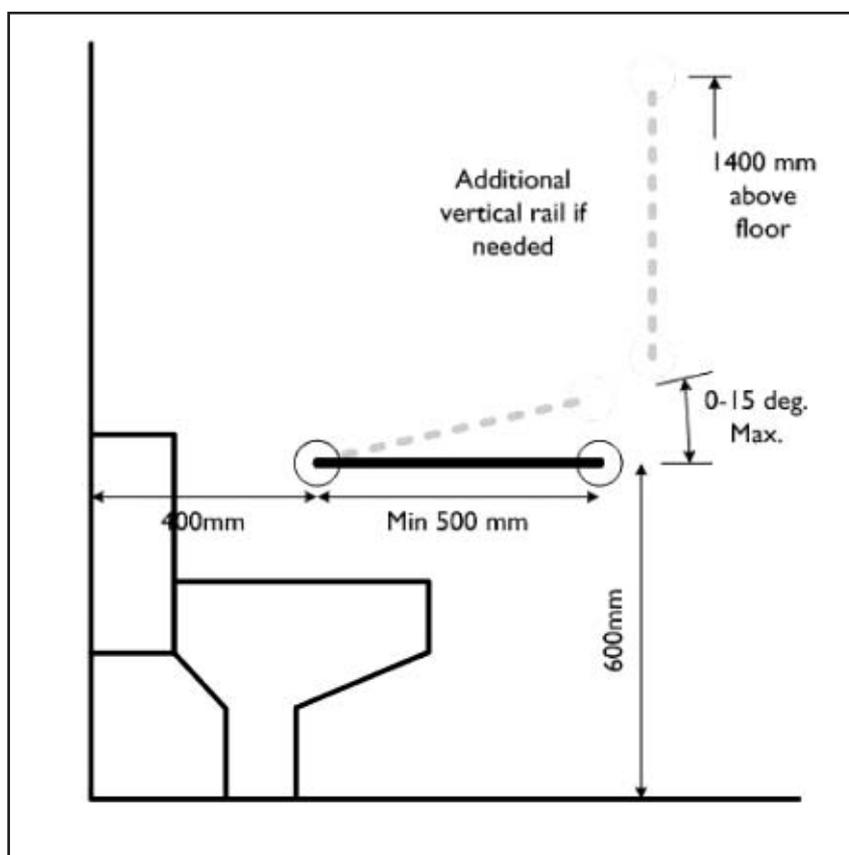
*Spatulate cistern lever flush handle may be sourced from the Nicholls and Clarke group of companies [www.phlexicare.com](http://www.phlexicare.com).*

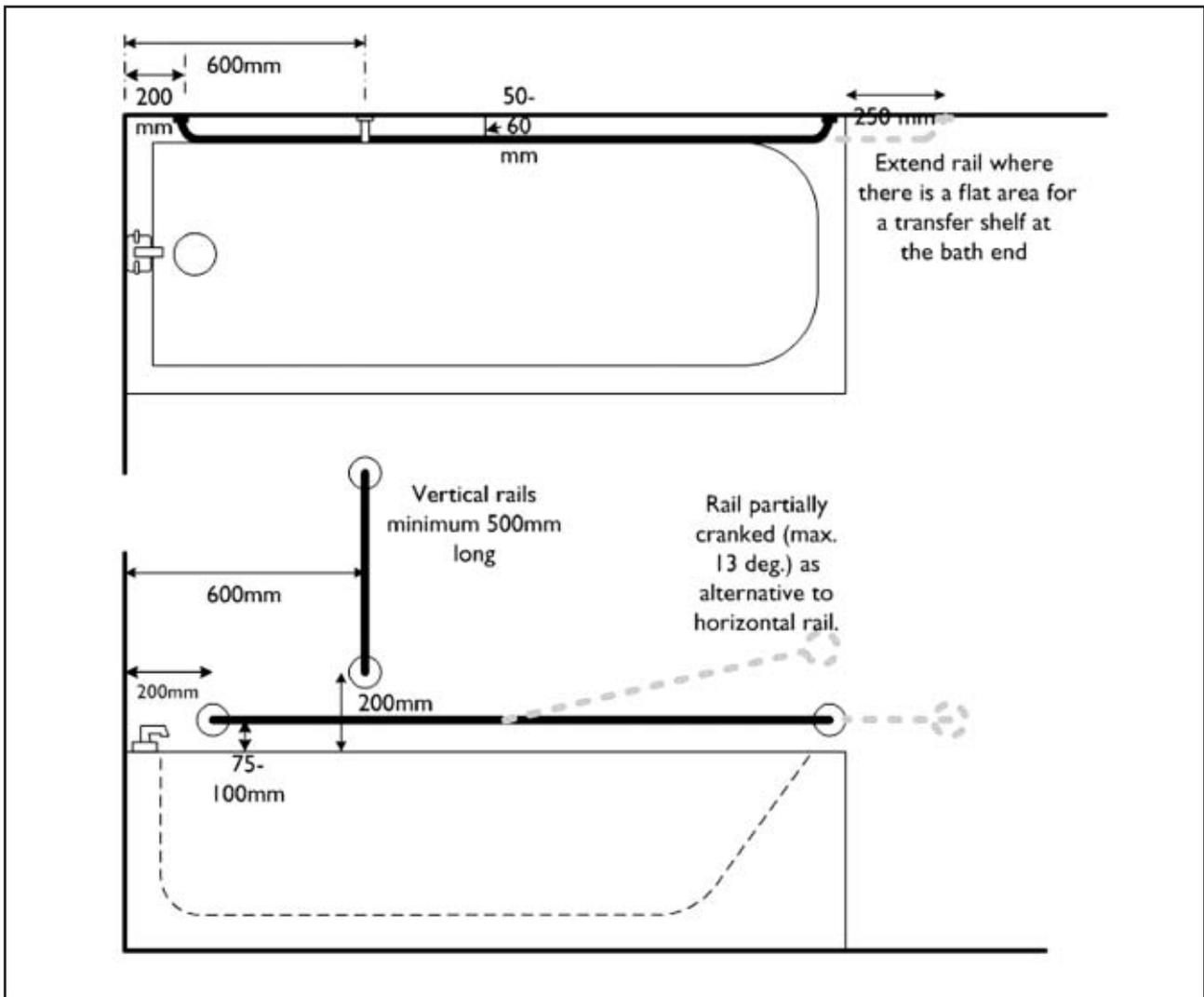
## 5.6 Bathroom grab rails

Do consult the tenant on their preferred siting of the grab rail(s); however, the illustration provided does give workable dimensions to use as a default.

Ideally the grab rail(s) should be sited to allow fixing to masonry with 3 x No 10 (minimum 50mm) plugs and screws at each end. Where the walls are of timber stud construction the rails should be secured to a 19mm thick patruss which is in its self, secured to a minimum of 2 vertical studs. Ensure patruss corners and edges are well rounded and decorate the new woodwork on completion.

In bathrooms, consider using moulded/ extruded plastic and acrylic rails as the use of metal rails requires a higher degree of care to ensure that there is no possibility of them becoming conductive should they come into contact with live wires or pipe work that may be within the walls (if metal rails are being used do ensure the installation complies with the IEE Regulations).





## 6. General items

### 6.1 Door and wall protectors

Door and wall protectors are a cost effective method of mitigating against the unsightly damage caused by wheelchair footplates.

Door protecting kick plates are available in aluminium, steel and acrylics. Kick plates should be at least 300mm high and be the full width of the door and screw rather than adhesive fixed. Site the plate at 15mm above the bottom edge of the door. Do select a kick plate that is self-coloured throughout and blends in with the colour of the door.

For walls, there are a number of proprietary products available to protect surfaces and corners and the choice made may depend on

whether the protection needs to fulfil purposes additional to just preventing damage to the wall. As an example corner protection is available as PVCu “L” sections that come with self-adhesive strips for fixing. If, however, there is also a risk of personal injury from falling against a corner this can be substituted for with a foamed polyurethane corner protector (“*Cushion Guard*” by PJP Plc for example available through the Intrad website on [www.intrad-pjp.co.uk](http://www.intrad-pjp.co.uk)) that absorbs impact. At lower levels, walls can be simply protected by forming an upstanding skirting of sheet vinyl flooring up to a height of approximately 300mm.

## 6.2 Alter heights of electric faceplates

Positioning light switches at 1050mm and socket outlets at 600mm above the floor will make them accessible to wheelchair users in most circumstances and allow those less able to access them with minimal bending and reaching. If, however, the purpose is to facilitate the use of a specific item of equipment, do adjust the height accordingly. Do consider specifying new faceplates rather than reusing existing ones and select full face rocker type light switches and for socket outlets, source those that have the switches at the outer edges.

Where only one socket needs moving, or there is concern that the disruption associated with any rewiring could put the tenant at risk, an alternative maybe to fit an extension riser. These simply plug into the existing socket and can be screwed to the wall without the need to involve an electrician (e.g. “Handisocket” by “Homecraft Supplies Ltd).

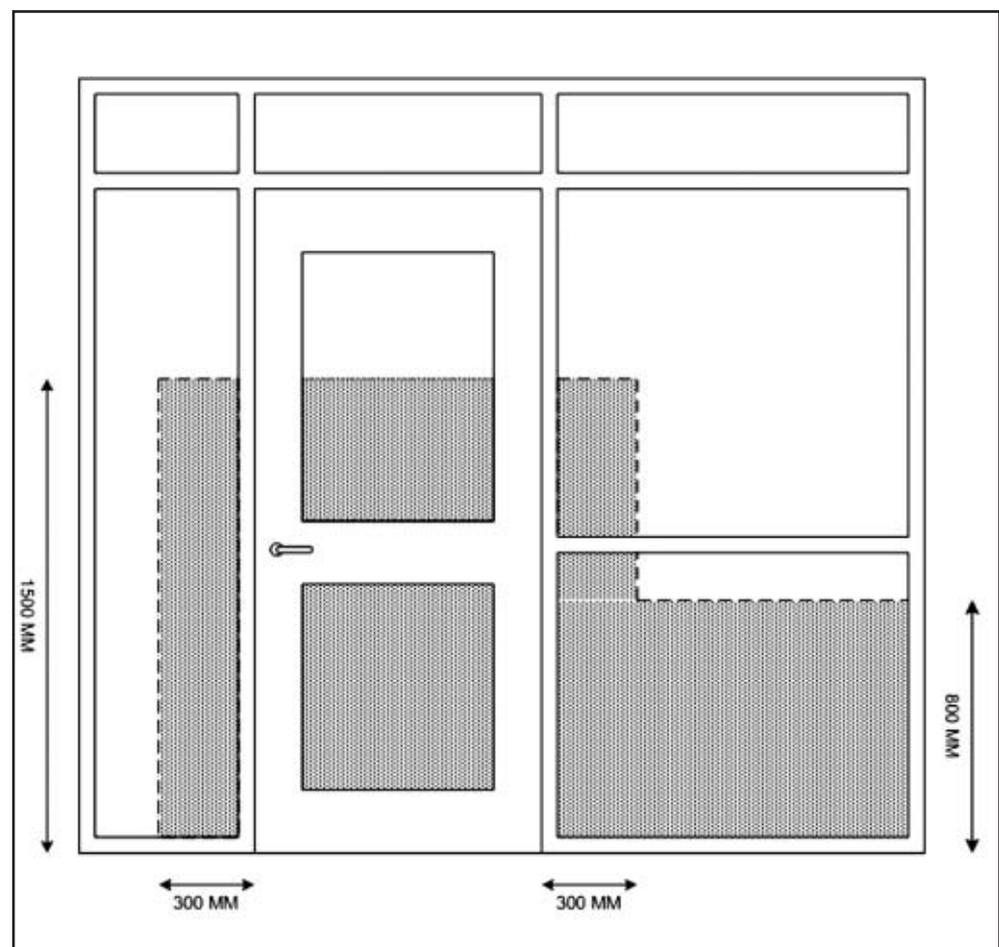
Any cable jointing that is necessary is probably most appropriately done within the existing back box and then left covered by a blank faceplate. If the work is to benefit a long-term tenancy, do consider recessing the new cabling and faceplates within the walls.

Competent electricians registered with the NICEIC should only carry out this work. Installation of the equipment should comply with BS.5671 and following installation, be confirmed, as such with an electrical installation certificate.

## 7. Safety items

### 7.1 Safety glass

Glazing can be a serious hazard in the home and accounts for a large number of domestic accidents every year. As some disabled tenants may be at more risk of falling onto glazed areas, the potential for serious accidents is significantly increased. It is for this reason that it is appropriate to consider



installing safety glazing as an adaptation, to allow a disabled person to live independently and safely within their home.

When specifying for re-glazing consider working to the standard of Approved Document N of the Building Regulations. Although there is no duty to do so, it may be usefully referred to as the acceptable minimum good practice. The sketch is based upon Approved Document N and indicates the potentially critical areas of glazing that should be considered for having glass that breaks safely (*BS.6206:1981 covers the concept of safe breakage of glass*).

The Approved Document and associated codes of practice tests for breaking glass are based on the effect of falling bodies. A limitation of this is it overlooks the potential for point impacts from wheelchair footplates. Therefore, where the work is being carried out for a wheelchair user, do consider specifying *laminated* safety glass rather than toughened safety glass.

Do be aware of the needs of people with visual impairments if there is a large expanse of glass. Where there is a potential for collision with large areas of transparent glass, consider discussing with the tenant whether

it is an option to lightly acid etch patterns onto the glass in order to make it more noticeable.

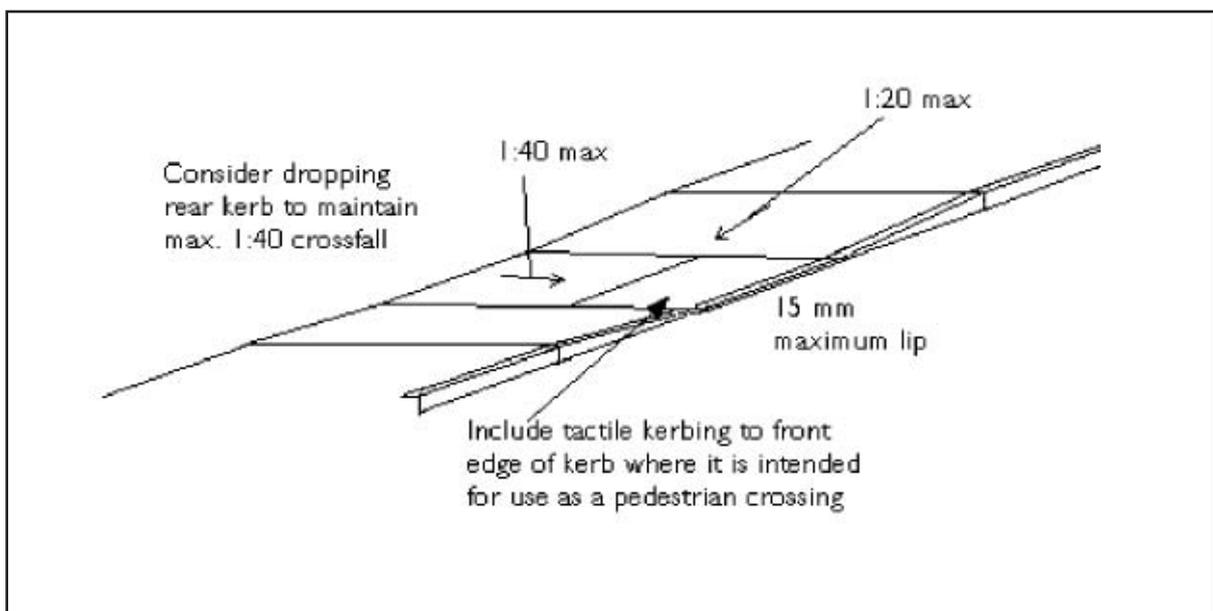
Do be aware that any re-glazing of external windows and doors must now comply with Part L of the Building Regulations (conservation of fuel and power).

## 8 Highways

### 8.1 Adopted highway drop kerb

Applying for and providing a drop down kerb(s) at a convenient point on adopted footpaths will greatly enhance the independence of a wheelchair user. Many local authority highways departments will have their own standard specifications for this type of work (and may consider funding it if a strong enough case is made). When discussing this with the Highways Department, do seek to obtain the “best” layout of the drop for your tenant, which means:

- A maximum crossfall across the path width of 1:40.
- A maximum longitudinal fall of 1:12.
- No stepped rises of greater than 15mm.



## Minor adaptations useful reference sites

### Useful links

The following short list of web sites and documentation provide useful guidance on how best to meet the needs of disabled people through advice and signposting to alternative means of support, possible sources of funding and links to specialists suppliers.

Royal National Institute for Deaf people  
<http://www.rnid.org.uk>

Royal National Institute of the Blind  
<http://www.rnib.org.uk>

Disabled Living Foundation <http://www.dlf.org.uk>

Disabled Living Centres Council  
<http://www.dlcc.org.uk>

The Housing Corporation “Good Practice” guides  
<http://www.housingcorp.gov.uk>

Department of Works and Pensions  
<http://www.direct.gov.uk/Audiences/DisabledPeopleAndCarers>

Royal Association for Disability and Rehabilitation  
<http://www.radar.org.uk>

Independent Living Centres  
<http://www.independentliving.co.uk>

Disability Rights Commission <http://www.drc-gb.org>

### Possible suppliers

The following list of suppliers is offered as a short cut to accessing some suppliers of specialist equipment, it is intended as an aid only and does not carry any specific endorsement of their goods and services.

N&C Phlexicare <http://www.phlexicare.com>

Wide range of equipment including grab rails, lever taps, ironmongery, window control systems and kitchen fittings.

Intrad <http://www.intrad-pjp.co.uk>

Wide range of door and wall protectors and grab rails.

Dyer Window Controls Ltd  
<http://www.dyerwindowcontrols.com>

Range of manual and electrical window control systems.

Tunstall <http://www.tunstall.co.uk>

Suppliers of door entry control equipment.

### Reference bibliography

Appleton N, Leather P (1998) *Carrying out Adaptations A Good Practice Guide for Registered Social Landlords*, London: The Housing Corporation.

Barrett J, Herriotts P, Houghton R H (1995) *Home management and housing*. (Equipment for Disabled People). Oxford: Disability Information Trust.

British Standards Institution (2001) *Design of buildings and their approaches to meet the needs of disabled: people-code of practice*. (BS.8300:2001). Milton Keynes: BSI.

Department of Health (2003) *A practical guide for disabled people and carers : where to find information, services and equipment*. (HB6) London: Department of Health.

Great Britain. Parliament (2000) *The Building Regulations*. (SI 2000/2531). London: Stationery Office.

Full information on the Building Act and Building Regulations are available at:  
<http://www.odpm.gov.uk/index.asp?id=1130483>

Habinteg Housing Association (2001) *Design Guide*. London: Habinteg Housing Association.

## Minor adaptations without delay

### Part 2: Technical specifications

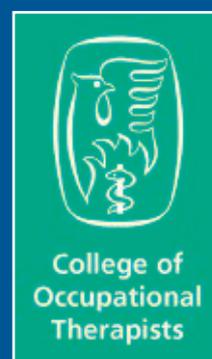
College of Occupational Therapists  
106-114 Borough High Street  
London SE1 1LB

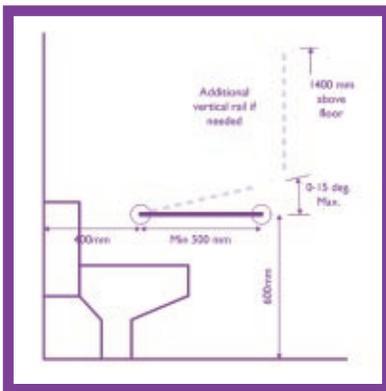
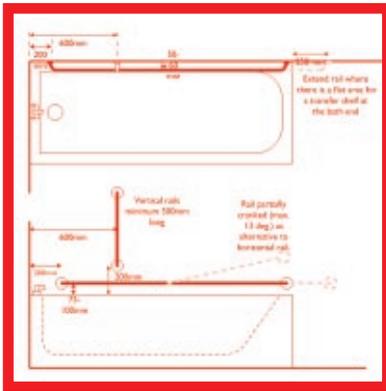
[www.cot.org.uk](http://www.cot.org.uk)

Tel: 020 7357 6480 Fax: 020 7450 2299

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## Minor adaptations without delay

### A practical guide and technical specification for housing associations

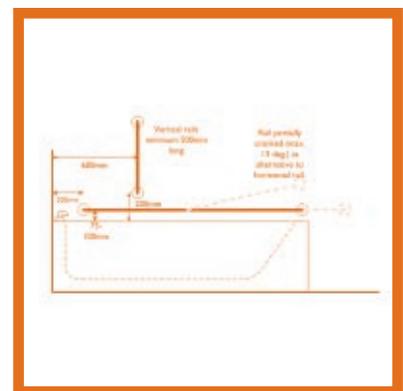
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