Inclusive Environments

Access Guide For All

cambridgeshire

LABC

A LABC Publishing Publication

elevate
OFFICE ENVIRONMENTS

first impressions count

Your company's image is vital. A professional looking work environment not only gives potential customers the right impression, it also improves the productivity and efficiency of you and your employees.

doors
cabling
flooring
ceilings
lighting
planning
partitioning
ironmongery
storage walls
operable walls
system furniture

Elevate Office Environments has been launched by Pentagon FM Resource to offer a complete office interior solution tailored to your company's budget and timeline.

Whether you are expanding, relocating or refreshing your existing space, Elevate's experienced team of Office Interior Specialists will work with you to design, plan and transform your work space to reflect the individual style of your business.

For further information or to arrange a free no-obligation consultation, please call **0800 975 9760**

Alternatively you can email us at **info@ed-it.org.uk**

HANBURY HOMEWORKS

YOUR HOME IMPROVEMENT SPECIALIST

ALL YOUR HOME IMPROVEMENTS UNDER ONE ROOF...AND AT TRADE PRICES

- KITCHENS
- BATHROOMS
- EXTENSIONS
- REFURBISHMENT
- CHARTERED BUILDING COMPANY AND FEDERATION OF MASTER BUILDERS

Hanbury Homework offers a complete service from concept to completion. Our team of helpful professional staff are committed to providing the highest quality standards and delivering complete peace of mind for all our customers.



sale@hanburyhomeworks.com 0800 954 8373

ACACIA
Tree Surgery Ltd

A PROFESSIONAL COMPETITIVE SERVICE OF
QUALITY & EXPERIENCE IN ALL ASPECTS OF

- **TREE CARE AND SURGERY**
- **PRUNING & HEDGE TRIMMING**
- **FELLING & STUMP REMOVAL**
- **PICUS DECAY DETECTION**
- **CONSULTANCY & SURVEYING**

63 Winfold Rd, Waterbeach
Cambridge CB25 9PR

Tel/Fax: (01223) 861698
Email: acaciatreesurg@aol.com

VISION
VISION HOME DESIGN

Conservatories, Orangeries, Windows, Doors, Kitchens and Bedrooms
0845 249 8869 for a FREE quotation
7 days 9am-9pm

Comprehensive service
from design through to completion

A14 Eastbound
(opp Cambridge Services)
Star Swavesey
Cambridgeshire CB4 5RE

Vision House
Fengate
Peterborough
PE1 5PE

Showrooms open 7 days a week
Mon-Sat 9am-5pm
Sun 10am-4pm
www.visionhd.co.uk

Sovereign Security

01234 302443
www.sovereignss.co.uk
Level 4, Unit 21Q, The Saturn Centre,
Bedford Heights, Manton Lane, Bedford MK41 7PH

The most honest, reliable and professional in our field, setting the needs of our customers along with the welfare of our staff as our prime objectives.

All our Staff are Security Industry Approved (SIA) Badge holders.

We believe that the expectations of the customer are paramount and we aim to ensure that the clients' requirements are kept at the forefront of all operations.

We form good working relationships with all our customers from the outset ensuring that their needs are clearly understood and catered for at all times.

- On site security
- Retail security
- Mobile patrol
- Event security
- Key holding
- Dog Patrol
- Covert Surveillance
- Home security

A security guard service you can trust

07789 682091 01234 341949

Foreword

Good design creates accessible buildings that are fit for purpose and support an inclusive society.

This document contains the most important aspects of the Building Regulations Approved Document M entitled 'Access to and use of buildings' (2004 Edition), and is used to illustrate the philosophy of a person making a journey to, within and away from aspects of the built environment. In particular, the aim of the 2004 edition is to foster a more inclusive approach to design that accommodates the needs of all people. Guidance and information is now offered on a wide range of topics including audience and spectator facilities, together with refreshment and sanitary facilities, sleeping accommodation, and the location of switches, outlets and controls. Also, the guidance introduces the concept of Access Statements to identify the philosophy and approach to inclusive design, adopted in a particular project.

We commend this booklet to you as a tool to assist you in creating exciting, quality projects within the built environment that offer the opportunity for everyone to be independent, active citizens.

This document has been created by the Building Control Sections of the six Metropolitan Councils of Cambridgeshire, working together to provide a full range of building control services.

We provide a service that is:

- Fast
- Professional
- Independent
- Publicly accountable
- Competitive

We can offer:

- Free pre-application consultation
- Inspection & advice throughout the works
- Unrivalled local knowledge
- Same day inspection services
- Liaison with other council departments
- Tailored services to meet individual needs
- Partner authority scheme

Additional service advice on:

- Access for disabled people
- Fire safety
- Safety at sports grounds
- Licensing
- Dangerous buildings
- Control of demolitions

Whilst every effort has been taken to compile the information in this guide, the publishers and promoters cannot accept any responsibility for incorrect information. Building Regulations are subject to change and if in doubt you should contact your Local Authority Building Control office to check if the information is still current.

Material from the Building Regulations 2000 (Approved Document M)

The Councils gratefully acknowledge LABC and RIBA Publications for permission to reproduce their material in this publication.

Designed and published by
Ten Alps Publishing

Trelawney House, Chestergate, Macclesfield, Cheshire SK11 6DW
www.tenalpspublishing.com
Tel: 01625 613000

Ref: BGH October 2007

This publication is also available as an Ebook:
www.accessibilitybydesign.co.uk/cambridgeshire

OptimaFoundationsLimited

Optima Foundations Limited,
Unit 30,
Broomhouse Lane Industrial Estate,
Edlington, Doncaster
DN12 1EQ.

MINI PILING
FOUNDATION SYSTEMS

Tel: 01709 864656 Fax: 01709 864694

Web: www.optimafoundations.com
Email: enquiries@optimafoundations.com

CONTENTS

Inclusive Environments – An Access Guide For All

BMS Bury Pumps

Breckland Maintenance Services Ltd

Sewerage pumping chambers:

are the low cost easy solution for pumping away sewage and waste water. You can choose from a basic, simple package pumping station for an annex or a mobile home to a full spec sewage pumping chamber. If you're a small builder or major operator, you'll find the right sewage pumping station at BMS Bury Pumps.

Typical Applications

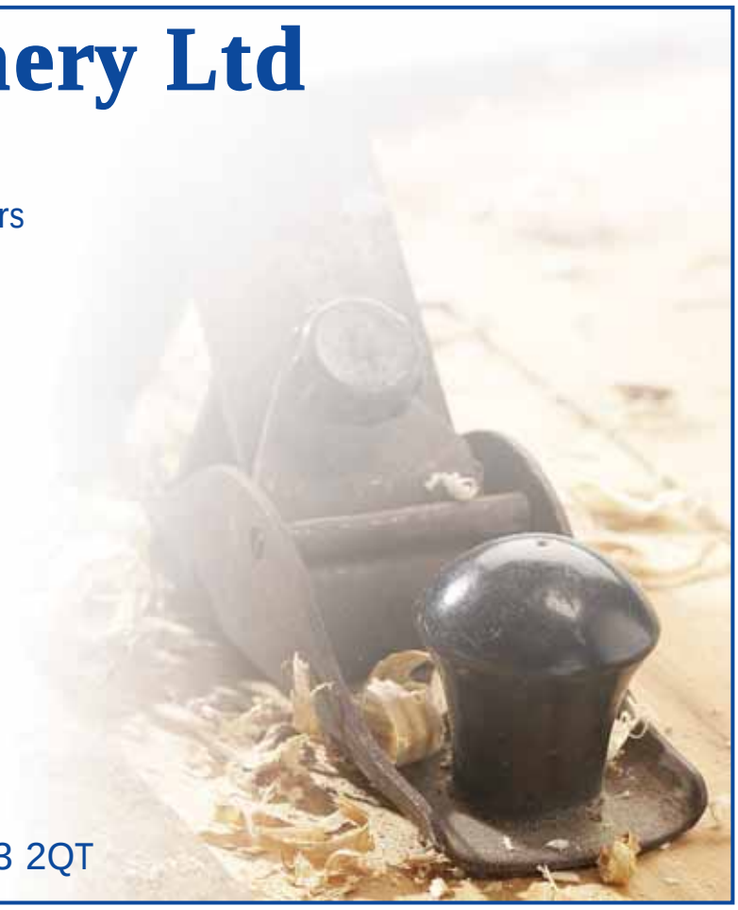
- Individual Houses
- Small Housing Estates
- Industrial Estates
- Hotels, Country Clubs
- Caravan & Camping Sites situated below main sewer level
- Small sewage treatment plants

Unit 8, Leyton Avenue, Middenhall, Suffolk IP28 7BL
Email: sales@pumpingchambersdirect.co.uk
www.pumpingchambersdirect.co.uk
Telephone: 01359 270802
Fax: 01638 562996

Fenland Joinery Ltd

www.fenlandjoinery.co.uk

- All types of windows and doors
- Staircases
- Conservatories
- Bespoke kitchens
- Softwood and hardwood
- All carpentry
- Friendly, professional service

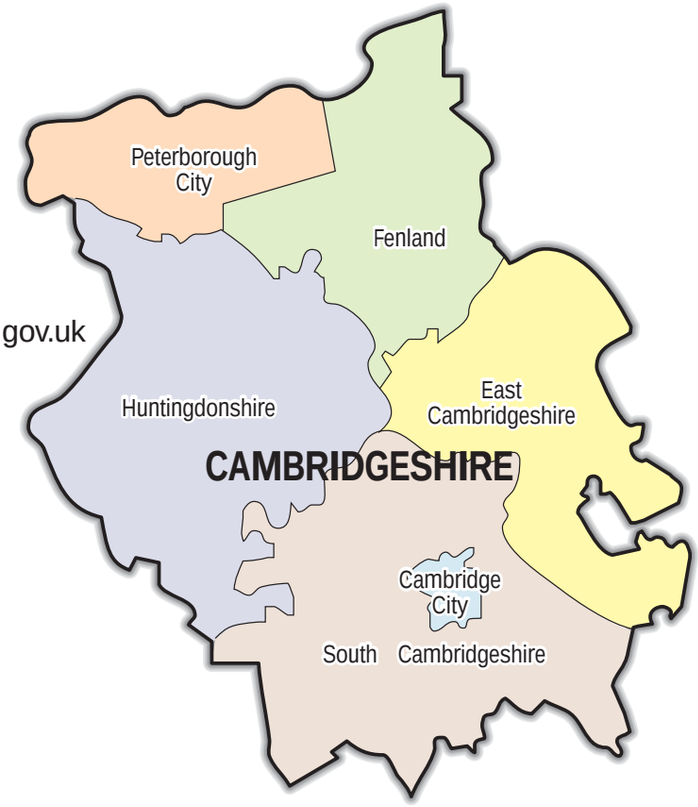


0845 491 7255

Fax: 01945 475657

Unit 21, Algores Way,
Wisbech, Cambridgeshire PE13 2QT

1. Building Control Contacts



Cambridge
01223 457118/457122
Email: planning.buildingcontrol@cambridge.gov.uk
Web: www.cambridge.gov.uk

East Cambridgeshire District Council

East Cambridgeshire
01353 665555
Email: bcservices@eastcambs.gov.uk
Web: www.eastcambs.gov.uk

Fenland
01354 654321
Email: buildingcontrol@fenland.gov.uk
Web: www.fenland.gov.uk

Huntingdonshire
01480 388455
Email: buildingcontrol@huntsdc.gov.uk
Web: www.huntsdc.gov.uk

Peterborough
01733 453422
Email: buildingcontrol@peterborough.gov.uk
Web: www.peterborough.gov.uk

South Cambridgeshire
08450 450500
Email: building.control@scambs.gov.uk
Web: www.scambs.gov.uk

The Cambridgeshire County Group is the six Cambridgeshire Building Control Authorities working together to provide a full range of building control services.

2. Inclusive Design

The principle of inclusive design is the provision of integrated and functional solutions, which create an accessible environment which is fit for purpose and easy to use by all.

The benefit of achieving this aim is that as many people as possible will be able to participate spontaneously in mainstream activities with equality, choice, dignity and independence. The end result is that more people can enjoy the opportunity of taking a positive part in their community.

Inclusive design is beneficial for us all, whether carers with children, people carrying luggage, people supported by an assistance dog, visitors to a new community or those who are anxious and unsure. High quality designs incorporating clear signs can raise people's spirits, make the built environment easy to use, less intimidating and enhance our quality of life. But such success does not come easily, nor is it a 'bolt on' exercise for the Building Regulation application, but is driven by an inspirational need from the very first moments that the final project is imagined.

Much of the guidance is written to support an individual upon a journey to and within a building, to enable them to take part in their chosen activity, perhaps enjoy refreshment, use the toilets and leave the premises when they wish. Throughout this booklet we will refer to the idea of an individual and their journey through the built environment.

Much guidance is available to support you in creating inclusive environments, whether you seek advice from this simple booklet, choose to consult Building Regulations Approved Document M 'Access to and use of buildings' (2004 Edition), use the advice of BS8300:2001, or read one of the many other public or private publications.

It is best however, to remember that all this advice constitutes minimal standards of what is considered inclusive design. Reducing the standard or detailing contained within any of this advice may result in a built environment that creates barriers to access for some or even many people.

Thus, we would urge all our readers to always strive for best practice thereby ensuring that completed projects support the aspirations of an inclusive society.

Inclusive design should not end at the boundary of our project, as an individual's journey will begin at home, may include the use of public transport or their own vehicle, and so inclusive design does not look at the premises in isolation but considers and embraces the concept of an individual's journey to, through and away from the premises.

The design process should be recorded within a 'Design and Access Statement', a document that is contained within the Planning Application, later used to support the Building Regulations application and upon completion of the development, retained within the premises handbook. Further advice on 'Design and Access Statements' can be found in this booklet.

Head ✓ Start

An out of school club providing a good quality care during the summer, Easter and half term holidays at Ramsey Forty Foot Village Hall.

Full day care from 8.30a.m. - 5.30p.m. or sessional care, mornings or afternoons.

Ofsted registered with a good report.

For further information please contact Adela Costello on 01487 710709 or email adela.costello@btinternet.com

3. Access and the Planning Process

Access for disabled people in planning terms is a material consideration. Some confusion has existed in recent years on this issue, largely due to the existence of Approved Document M of the Building Regulations and the division of responsibility between the two areas of Planning and Building Control, the former dealing primarily with land use and appearance, whilst the latter deals with the construction of the building. In the main, this was due to the old Planning Policy Guidance Note 1 (PPG1) that expressed a desire that the two disciplines should not 'overlap'.

The strength of the design solutions found within Approved Document M raised the level of awareness regarding access issues, but led some people to wrongly consider accessibility only as part of a Building Control solution.

The new planning legislation, the Planning and Compulsory Purchase Act 2004 – Section 42, introduced the principle of 'Access and Design Statements' being required for most planning applications. This has clarified for all involved that access issues are a planning matter.

There are a variety of researched technical guidance documents available, including BS8300:2001 and Approved Document M (2004), any of which may be chosen as the basis of an accessible solution. It is important to use the latest published guidance on a particular subject to follow best practice, for example the design of ramps in Approved Document M (2004 Edition) is slightly different and seen as more reflecting the needs of disabled people than BS8300:2001. Another example is the level of parking at certain sporting venues or centres, where Sport England guidance would be seen as more appropriate. However, care should be taken when referring to older documents, as they may no longer lead to an accessible solution.

This booklet hopes to create a consistent approach to what is considered good design within the development process. It will be an effective tool for people asking the question 'what is appropriate design for disabled people?'

This booklet is a reference document of accessible design solutions that can be used across the whole development process from the creation of 'Design and Access Statements' for Planning consent to building work being undertaken on site.

Access Statements (Planning)

Section 42 of the Planning and Compulsory Purchase Act 2004 parts (a) and (b) requests a statement on design and on access. However very little guidance on what these should consist of actually exists, particularly with regard to disabled persons' access.

Two points should be noted with regard to the information below:

1) **The information is applicable to one aspect of the 'Design and Access Statement', that of access for disabled people. It should be noted that Design and Access Statements cover a large range of issues (of which access for disabled people is only a part) and these other issues will have to be included within the Statement depending on the application.**

2) **The information below is only one way of dealing with the access for disabled people aspect of Design and Access Statements. There may be other ways that are equally valid.**

Guidance from the Commission for Architecture and the Built Environment (CABE) 'Design and Access Statements' stressed an inclusive approach to addressing section 42 of the Act where the issues of 'Access' (in the inclusive environment sense) were combined with an overall philosophy of design. Whilst this is a

Stanground Carpets & Flooring

LARGE SELECTION
OF CARPETS & VINYLS
INCLUDING AXMINSTERS,
WOOL TWISTS & WOOL NATURALS.

The Local Family Business

- Solid Wood, Laminate & Bespoke Flooring
- Design, Supply & Fit
- Our Fitters Have 10 Years + Experience
- Home Selection Service Or Visit Our Showroom

01733 569 112

www.stangroundcarpets.com

Showroom: 1-3 Ayres Drive (Off Coneygree Road)
Stanground, Peterborough PE2 8JS

Open Monday - Friday 9.00am - 5.00pm
Sat 10.00am - 4.00pm
Open Other Times By Appointment

FREE PARKING

good idea it is not the only approach to following the requirements of the Act particularly with regard to disabled persons' access.

It is the purpose of this document to focus on access for disabled people. Whilst it is understood that an integrated philosophy is desirable (access for disabled people should never be considered an 'add-on), it is important that the specifics of what is to be achieved in terms of such access are not lost. The Access part of the Design and Access Statements as expressed in the CABE document does not separate out in detail what an applicant intends with regard to making the development as accessible for possible for all users.

With the above in mind it is important to identify the proposed changes so a development controlling agency can clearly identify what is proposed for disabled persons' access within the planning process.

One method of undertaking this could be for the applicant to identify the specific aspects of the development that would benefit disabled people and include them in a separate chapter/appendix/document. This would simplify the identification of the issues for planners.

Example: Shop fronts

A new shop front is proposed with a floor to ceiling glass frontage. The developer could state in an Access Statement that they intend to place manifestations on the glass at the appropriate height, appropriate surrounding on the door so it is visible from the rest of the frontage, flat and level entrance and a door clearance of an appropriate width.

The word 'appropriate' is used repetitively in the example above. Appropriate design can be found later on in this document. Areas that may be pertinent to planning are marked with a 'PL'. However it should be understood that in all cases it is likely that the latest/best guidance is the most appropriate document to refer to.

Possible sources for information not contained in this document can be found in section 37.

4. Disability Discrimination Acts

The Disability Discrimination Acts of 1995 and 2005 [DDA] offer inclusion and equality of citizenship to disabled people, providing equal rights of access to employment opportunities, the provision of goods, services and facilities, thereby enabling disabled people to be independent active citizens benefiting from recreation, family life, faith, and cultural opportunities with both choice and dignity. Additionally, the DDA requires that children and young disabled people do not face discrimination in their access to education. The DDA also provides a legal framework for disabled people to challenge companies or organisations if they are treated less favourably by reason of their disability.

The DDA provides a broad definition of disability i.e. an adult or child with a disability is someone with a substantial, long-term physical or mental impairment, which has an adverse effect on their ability to carry out normal day-to-day activities.

Important areas of life covered by the DDA include:-

Part Two	–	Employment
Part Three	–	Provision of goods, facilities and services
Part Four	–	Education
Part Five	–	Public transport

The following time line offers a brief explanation of the impact of the DDA:

From December 1996

It has been unlawful for employers or service providers to treat disabled people less favourably by reason of their disability. Places of employment should be reasonably accessible, additionally; employers have had to make reasonable adjustments for employees based upon their specific requirements and to make appropriate amendments to their policies, procedures and practices to avoid discrimination.

From December 1999

All service providers (including community and voluntary organisations) have to provide a modified system of service provision for any service users with disabilities, also to make appropriate amendments to their policies, procedures and practices to avoid discrimination, irrespective of the size of the organisation.

From October 2004

All service providers are expected to undertake other ‘reasonable adjustments’ to remove, adapt or alter any physical barriers which prevent service users with disabilities from gaining equal access to the service on offer, or alternatively the service provider may provide the service in a different manner, thereby avoiding the physical barrier.

From December 2006

New far-reaching duties came into effect that require public authorities to consider their role and function, and to promote equality for disabled people thereby avoiding institutional discrimination.

Note: The Access Statement (see sections 3 and 5) can become an effective tool for managers to show how they are meeting their responsibilities under the Disability Discrimination Act either as employers or service providers (e.g. making sure an accessible toilet doesn't end up as a store room, making sure an induction loop is switched on and working, choosing an appropriate colour and signage scheme in any planned or essential maintenance refurbishment so that the building is easy to understand for people with learning difficulties etc.).

5. Access Statements (Building Control)

Access Statements are a recent concept that have been brought into both the Planning and Building Regulations process. The overarching aim of Access Statements is to ensure that the development is accessible. It is in effect a record of the design decisions with regard to access.

Generally speaking, the earlier access issues are considered, the more likely it is that the scheme will be easy to get to and use for everyone. By the same token, the earlier access is considered the more cost effective it is. It is much better to plan early and build access into the design, rather than having to make expensive alterations later on. For example: When considering the layout of a housing development on a sloping site, early consideration of how disabled people are to gain access is likely to ensure that the slope of the site works for the development rather than against it. Thus whilst the amount of information contained within a statement may vary the principle is the same for all developments (large or small).

Planning and Building Control legislation recognises the value of an Access Statement and Part M of the Building Regulations recommends the submission of Access Statements at the plan submission stage on most (non-domestic) applications. Once the scheme is complete, the Access Statement then becomes an effective management tool for managers of the building to ensure that the access features and fittings are used effectively and are not compromised by poor maintenance.

The Access Statement is therefore a record of all the design and management issues that have been considered that will affect how easy (or not) the building is to use. Thus an Access Statement at the Building Control stage should be seen as complementary to, and as a development of, the information provided in the Access Statement at the planning stage (if planning was required).

Note: Details on Access Statements can be found in Approved Document M 2004 (Part M) – Paragraph 0.20 – 0.28

Below are four methods of how an Access Statement can be used within the Building Control process. These are then followed by an example. It should be noted that these are by no means definitive and it is likely that the methods will overlap.

Use 1: Showing an Inclusive approach

Part M1 of the Building Regulations states that: "Reasonable provision shall be made for people to gain access to; and use the building and its facilities." The guidance that follows in Part M shows some examples of certain access issues (e.g size of door widths etc). However, the guidance is not comprehensive and recognises that there are other issues, not adequately illustrated within Part M (e.g. colour schemes and wayfinding).

The Access Statement will assist Building Control bodies in making judgements about whether proposals make reasonable provision. This is reflected in Part M where it recommends that an Access Statement should be provided at the time plans are deposited, a building notice is given or details of a project are given to an approved inspector, and updated to reflect the decisions reached on site.

The Access Statement should therefore be a normal part of the submission process on most building control applications.

Use 2: Showing different/better provision

Following the guidance in Part M is one way of satisfying the Building Regulations. If it is done to the standards in Part M then it is usually considered to reasonably comply with the regulations. However, it is not the only way. If the applicant can show that the method they have chosen achieves the same result as the guidance in Part M then it may be considered acceptable. This sort of

departure from the guidance will usually be given in the form of an Access Statement. Basically this will be text (and/or other supporting information) that explains why the proposed method is better given the situation.

Example:
A condition specific day centre used by children is proposing new toilets. The designers feel that the new toilets they wish to install should NOT follow the Part M guidance. They state that most of the people using such toilets would find them difficult because of their design. In an Access Statement they show how an alternative design is more appropriate given the use of the building.

Use 3: Other Constraints

In some cases it may not be possible to comply with Part M due to other concerns (often historic / conservation issues). In this case an Access Statement can be used to provide an explanation of how other methods can be used, to result in equality of access. Again this should be strongly evidenced.

Example:
A grade II listed pub is undergoing major work on its frontage. One of the concerns is to ensure the retention of its historic nature. In this case this means that the 15 steps at the front are retained. Other constraints mean the provision of a platform lift or ramp to the principal entrance is impossible. The developer proposes the creation of a second accessible entrance to the pub. Improvements to this entrance ensure that it is as dignified an approach as the principal entrance. Also improvements are to be made to the principal entrance steps to ensure they comply as far as is reasonable with all the relevant guidance in Part M. An explanation as to why they cannot make it accessible and what they intend to do to ensure that the building will be accessible by other methods are detailed in an Access Statement.

Use 4: Managed Solutions

In some cases the applicant may wish to provide a managed solution in place of a designed solution. These should be looked at and evidenced very carefully before being considered acceptable.

Example:
An applicant has a proposed major student development. Each room in this development is to have its own toilet / shower facility. Part M demands that we treat this as hotel accommodation and that at least 1 in 20 of the rooms should be accessible. The applicant states that whilst they are willing to build the appropriate sized toilets in 5% of the rooms they ask if they can place the fixtures e.g. grabrails within the accessible toilet on a need basis. They argue that experiential evidence has shown high levels of damage and vandalism in this type of development. They also state that the tenants only use the accommodation on a yearly basis and they will know the needs of the tenant prior to accommodation being allocated. Lastly they own 10 other such facilities countrywide and show that the take up for users who may need such fittings is less than 0.5 %. They propose to keep all the fixtures and fittings on site and attach them as and when the need arises. Again, all the information above can be provided in an Access Statement.

Conclusion

It is not the purpose of this guidance to be prescriptive. The examples above merely show how an Access Statement could be used. Ultimately they should never be used in a negative or cynical method purely on financial grounds without very strong evidence.

6. Fire Safety

Regulatory Reform (Fire Safety) Order 2005

This statutory instrument places a duty upon employers, owners and occupiers of all premises (other than single dwellings), including the voluntary sector, to ensure that a workplace contains adequate fire precautions, as determined by completion of a fire safety risk assessment. The Responsible Person, generally the building or service manager in many commercial premises, is responsible for regularly completing a fire safety risk assessment for the premises (or additional assessments should circumstances within the premises change). Also undertaking regular daily, weekly and monthly checks or tests of the fire precautions of the building, holding regular fire drills and ensuring that any staff are trained and aware of their responsibilities during a fire. Suitable fire precautions include: -

- Means of detection and giving warning in case of fire for all the building occupants.
- The provision of means of escape.
- Means of fighting fire.
- Assisting any disabled people to leave the premises during an emergency.

An integral part of creating accessible, inclusive environments and ensuring equality of opportunity is making sure that occupants with mobility impairments are able to evacuate the premises in an effective, timely, safe and dignified manner. All of these are the responsibility of the building or service management.

It is recommended that people with responsibility for the safe use of buildings consider the development of Personnel Emergency Evacuation Plans (PEEPs) for the benefit of disabled people who frequently use the building.

Staircases can create a barrier to access about the premises and make evacuation complex too. However, there are products available that can be of assistance in helping some people with mobility impairments to descend a staircase and evacuate. Such apparatus enables a person with mobility impairments to be evacuated from an upper storey with reasonable ease by trained and competent members of staff. However people who are unable to transfer from a wheelchair may be unable to use such a device, and alternative means of evacuation will be necessary and should be considered within their PEEP. It should be recognised however, that the need to use such apparatus might prevent a person with mobility impairments from working alone at the upper levels of the building.

Further advice and information can be found in HM Government publications entitled ‘fire safety risk assessment’ relating to 11 different types of premises and written to offer support for premises managers in dealing with the Regulatory Reform (Fire Safety) Order 2005. These documents can be viewed at www.dclg.gov.uk.

This suite of documents also offers some advice regarding the possibility of using a traditional passenger lift as an escape facility for people with a mobility impairment, during a fire. It may be deemed appropriate, subject to an agreed fire risk assessment, that if the lift facility has a separate electrical supply to the remainder of the building, and the lift and associated staircase are incorporated within a fire resisting shaft (with a final exit at an access level), it may be acceptable to consider the use of a passenger lift as a means of escape in case of fire. However, it would be prudent to seek the assistance of an appropriately qualified, competent person in determining this solution.

Further advice and information can be found in the HM Government publications entitled ‘fire safety risk assessment’ written to support premises managers in dealing with the Regulatory Reform (Fire Safety) Order 2005, including a guide specifically dealing with means of escape for disabled people. These documents can be viewed at www.communities.gov.uk

7. Lifetime Homes Standards

In the 1980s, the Joseph Rowntree Foundation had concerns about the quality of British housing and how inaccessible and inconvenient many houses were for a large proportion of the population – whether people caring for children, the elderly or those with a disability.

In 1991, a group of experts joined forces to create the Joseph Rowntree Foundation Lifetime Homes Group who developed the concept of the 'Lifetime Home Standard'. The idea was to offer guidance that would ensure that newly designed and constructed homes which used this guidance, could be easier to use, more accessible and support people in, and enable people to live at home for longer. It was recognised that making significant adaptations to premises at a later date is expensive and time consuming. However, with careful thought and consideration, many of the problems which might be encountered can be designed out at an early stage, or works to facilitate likely future adaptations can be done at the initial construction stage.

There were originally sixteen design features, which when combined with new dwellings, ensured that they remained accessible, easy to use and adaptable, for example a power supply enabling the installation of a stair platform lift to be done easily in the future if required.

In 2006 it was recognised that these standards needed updating, to take account of changing design and the design features common in high-density flats. The British Standards Institute (BSI) set up a task group to re-draft the lifetime homes standards in a 'Draft for Development' entitled "Design of Accessible Housing – Lifetime Homes Specification". This 'Draft for Development' was published in 2007.

For more information on Lifetime Homes Standards please contact:

www.jrf.org.uk/housingandcare/lifetimehomes

For further information on the 'Draft for Development', "Design of Accessible Housing – Lifetime Homes Specification", please contact the British Standards Institute at:

www.bsi.org.uk

8. Changing Places

There is much advice and guidance available within Building Regulations Approved Document M (2004 Edition) and other contemporary documentation with regard to the provision of accessible toilet accommodation for people with mobility impairments. The traditional solution is the provision of a wheelchair accessible toilet with corner WC as found in Diagram 18, Approved Document M.

Such a facility will enable a great many disabled adults to use the facility independently with dignity and for others to use the facility with assistance from their carers. However, there are many people with profound disabilities who need more specialised facilities incorporating a hoist and changing bed. The lack of such facilities necessitates that people resort to being laid upon the floor of a traditional wheelchair accessible toilet, to undergo their toileting needs.

The provision of an adult changing room facility for toilet needs, within the built environment can therefore afford people with profound disabilities, their carers and family members, the opportunity to participate spontaneously in mainstream activities with equality and dignity.

A group of access charities are promoting the awareness of the need for and existence of existing ‘changing places’. Additional further information on adult changing rooms can be found at http://www.changing-places.org/

CAMBS BIN CLEANING COMPANY

16 Dunmowe Way, Fulbourn, Cambridge CB21 5HW

Monthly Wheelie Bin Cleaning Service

What you find in your bin:
Maggots, E-coli 0157, Campylobacter jejuni.
These bacteria can live and breed in your bin.

Prices vary from different options.

Option 1
1 Bin for 3 months £10.00 — 2 Bins for 3 months £18.00
3 Bins for 3 months £28.00 — 4 Bins for 3 months £37.00

Option 2
1 Bin for 6 months £18.00 — 2 Bins for 6 months £33.50
3 Bins for 6 months £50.00 — 4 Bins for 6 months £65.00

Option 3
1 Bin for 12 months £33.50 — 2 Bins for 12 months £60.00
3 Bins for 12 months £90.00 — 4 Bins for 12 months £118.00

Your bin cleaned once every 4 weeks.

Your bin washed/cleaned, disinfected and deodorised after refuse collection.

Take this offer by emailing to: cambsbin@yahoo.co.uk OR
Call us for free on **0800 183 2011**
You can also find us on the yell.com/yellow pages
visit **www.cambsbincleaning.com**

OPENING HOURS = 24 HOURS

Boilers 2 Bathrooms

Plumbing & Heating Ltd

- Central heating design, installation and maintenance
- Bathrooms
- Kitchens
- Tiling, carpentry and all associated works
- Energy efficiency certification
- CORGI registered

For a professional & reliable service please call Darryl on: 01223 214202

info@boilers2bathrooms.co.uk
38 Lichfield Road,
Cambridge CB1 3SS
Mobile: 07766 333871
www.boilers2bathrooms.co.uk

CORGI
228365

Established 1972

DW TONGE

ELECTRICAL CONTRACTORS

NAPIT

TRUST MARK
Government Endorsed Standards

NAPIT members with Trustmark status
Commercial & Domestic Contractors
From a single socket to a full re-wire

63 Edinburgh Road, Newmarket CB8 0QD

01638 665040

07702 410754/07855 770062

ASG Designs

Complete Bathroom and Kitchen service. Design, supply and installation offering a one-stop service from start to finish.

- Plumbing
- Electrical
- Tiling
- Flooring
- Showers
- Lighting

Tel: **01733 702740**

Mob: 07811 280556
4, Medeswell, Orton, Malborne,
Peterborough PE2 5PA

9. Technical Standards Introduction Page

Key:

PL = design guidance which can be used when addressing a planning issue

BC = building control design guidance

This section of the guide was compiled using the latest published design guidance (at time of going to print) on each subject. The vast majority of this came from Approved Document M; where other design guidance has been used, its source is stated.

This section of the guide is split up into 5 sections. They are:

ACCESS TO BUILDINGS

10. Car Parking Spaces

● Levels of disabled persons parking spaces PL

Table 1.

Function Car Park Serves	Minimum Level Of Or % Of Disabled Persons Parking Spaces
Workplaces (where no. of employees who disabled motorists is not known)	At least one space or 5% of the total, are whichever is the greater.
Shopping Facilities	One space for each employee who is a disabled motorist, plus 6% of the total capacity
Recreation And Leisure Facilities	One space for each employee who is a disabled motorist, plus 6% of the total capacity
Sports Facilities	Either 6% or 8% depending upon facilities provided. See Design Guidance Note "Access for Disabled People" produced by Sport England for further details.

Levels taken from, and further information available from, BS 8300:2001 4.1

● Design of disabled persons parking spaces BC & PL

● Parking spaces driven in forwards

Disabled persons parking spaces should be designed in accordance with the latest design guidance which comes in the form of BS 8300:2001 4.1.3 Figure 1 (illustrated overleaf). They should be designed using the appropriate measurements (i.e. 3.6m x 6m for a single space) and should display all the symbols and hatchings highlighted in the British Standard. The two hatched transference zones to the side and rear of the parking space are for people to either transfer out of the car into a wheelchair, or for people with ambulant mobility difficulties who may need to open car doors wider to get in or out. They are also necessary for people to safely load or unload equipment, shopping or registered assistance dogs. All of these activities may be required to the side or rear of the car.

● Positioning

The rear hatched transference zone of disabled persons parking spaces should be located to the rear of the car, as driven in forwards, and should ideally not intrude beyond the line of the surrounding parking spaces as this area is designed to be a protected safe area for loading/ unloading. The lateral hatched transference zone(s) should not double up as a general footpath/ access route.

● Parking spaces which are to be parallel parked into

Further guidance on this issue can be found in the DETR Traffic Advisory Leaflet 05/95 [2].

Designated disabled persons parking spaces which are to be parallel parked into, should measure 3.6m x 6.6m. They should also display the international symbol for disability (see page 65 Signs and Symbols) and should incorporate the appropriate dropped kerbs.

Location of disabled persons parking spaces

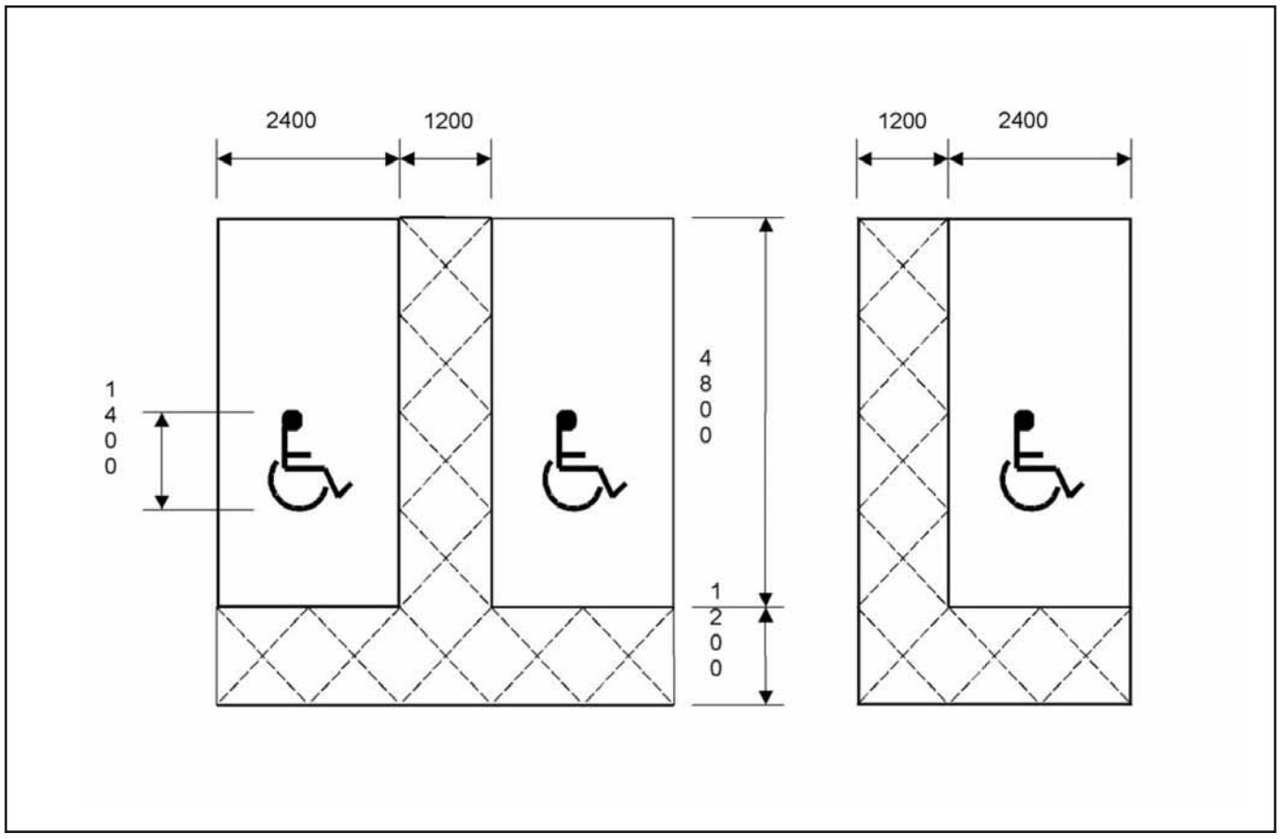
Disabled persons parking spaces should be located as close as possible to the principal entrance, to minimise a disabled persons potential travelling distance.

Level access should be provided from the disabled persons parking space to the principal entrance(s).

Ticketing and payments

If disabled drivers need to obtain tickets for pay and display parking, the ticket dispensing machines need to be accessible and usable. They should be adjacent to the designated parking and have controls between 750mm and 1200mm from ground level. This design guidance is taken from BS 8300. Further information on ticket dispensing machines and vehicular control barriers can be found in BS 8300:2001 4.1.4.

Figure 1. Designated off-street parking spaces



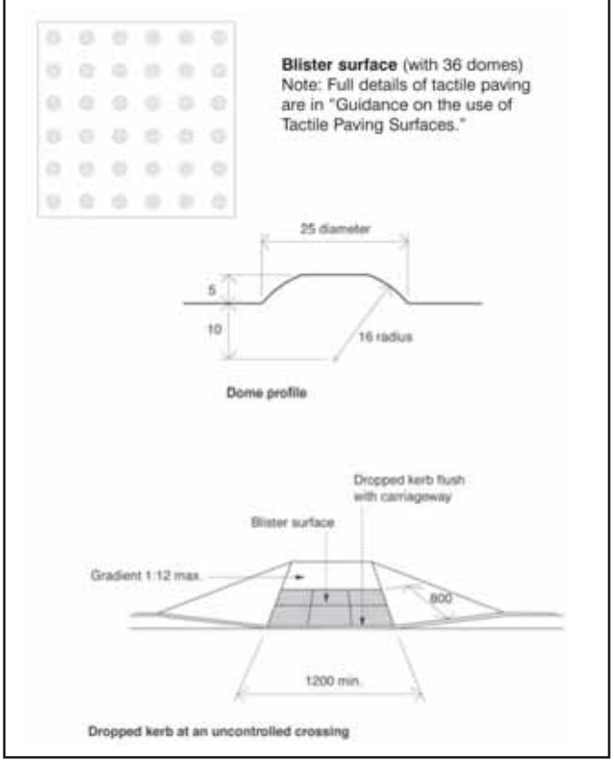
Single and multiple disabled persons parking bays

ACCESS TO BUILDINGS

11. Level Approach From The Boundary Of Site And Car Park BC & PL

- As far as possible, access should be level from the boundary of the site, and from any designated disabled persons parking spaces to the principal entrance(s) and any staff entrances.
- Where a difference in level between the boundary of the site or designated disabled persons parking spaces and the building entrance(s) is unavoidable due to site constraints/ topography, the approach may have a gentle gradient over a long distance i.e. 1:20 or shallower, or may incorporate a number of shorter sections at a steeper gradient.
- Where the gradient of the approach or a section of the approach is steeper than 1:20, it should be designed as a ramp, in accordance with the latest design guidance (see section 13).
- There should be sufficient space for people to approach the building and pass others travelling in the opposite direction. A surface width of 1800mm is sufficient to facilitate users who may need a greater area for passing each other comfortably (Approved Document M). A surface width of 1500mm may be acceptable if the route is less busy and passing places are provided for wheelchair users (passing places 2m long and 1800mm wide, within direct sight of another passing place and no more than 50m apart) (BS 8300:2001 5.2).
- Path edges can be defined using a change in texture or a low kerb (which do not constitute a trip hazard), this will help visually impaired people recognise the path edge.
- The path surface should be firm, durable and slip resistant, with a cross-fall gradient no steeper than 1:40. Inappropriate materials include loose gravel or sand.
- Any path or access route should be free of obstructions to a height of 2.1m, throughout its length and width.
- The route up to the principal entrance should be clearly identified and well lit.
- The danger of inadvertently walking into a vehicular access route should be minimised by providing a separate pedestrian route, and where there is an uncontrolled crossing point across the vehicular route, this is identified by a buff coloured blister tactile surface. Different tactile paving should be used for controlled crossing points, and different again for steps.
- NB. It is crucial that the right tactile surface is used in the right place. See “Guidance on the use of tactile paving surfaces” (DETR 1998).

Figure 2. Tactile paving illustrating an example of its use at an uncontrolled crossing



12. Landscape Furniture BC & PL

● Bollards and posts PL

Bollards should be at least 1000mm high, and not linked with chains.

Free-standing columns that support an entrance canopy and low level posts, e.g. bollards, should not be positioned within the width of an access route. If it is not possible to avoid their positioning within an access route, each free-standing post and column within an access route should incorporate a band 150mm high whose bottom edge is 1500mm above ground level, (or towards the top of the height of a bollard), and which contrasts visually with the remainder of the column or post.

This guidance is based upon the information found in BS 8300:2001 5.7.1 and aims to make bollards and posts as visible as possible for as many people as possible.

● Street furniture PL

Street furniture, such as lighting columns, signposts, litter bins and seats, should be located at or beyond the boundaries of an access route. If for practical reasons, it is necessary to locate items of street furniture within an access route, their presence should be clearly apparent, for example by ensuring that they contrast visually with the background they are seen against. Guidance taken from BS 8300:2001 5.7.1.

● Benches PL

Benches should have arm rests which can be used to help people lower into and lift up from the bench.

The finish of arm rests should not be cold to the touch, as this can be particularly painful for people with joint inflammation conditions such as arthritis.

It is advisable to have one or more of the arm rests set in from the edge of the bench, as this may enable a wheelchair user to transfer onto the side of the bench if desired. Benches should also have back rests.

● Minimum headroom height BC & PL

Pedestrian access routes/ paths should be free of obstructions to a height of 2.1m throughout their width.

● Doors BC & PL

Where there is a projection of more than 100mm, during normal use, onto an access route, windows and doors (excluding fire escape doors) that swing outwards towards an access route, should be protected by guarding, which incorporates a kerb or other solid barrier that can be detected by someone using a cane at ground level. This should direct people around the potential hazard.

Areas below stairs or ramps where the soffit is less than 2.1m above ground level should be protected by guarding and low level cane detection, or a permanent barrier giving the same degree of protection.

● ATMs PL

ATMs or cash machines should be positioned so that they are as usable as possible for as many people as possible. Guidance on the positioning of ATMs can be found in “Access to ATMs: UK Design Guidelines” (2002) which is produced by the Centre for Accessible Environments.

In general, the highest button/contact point on this machine should be no higher than 1000mm, and the reach into the machine buttons should be no greater than 210mm from the vertical position where someone would be using the machine from.

If this is not possible alternative positions can be found in the guidance previously referred to, as can further information on ATM design, location, positioning, and privacy areas.

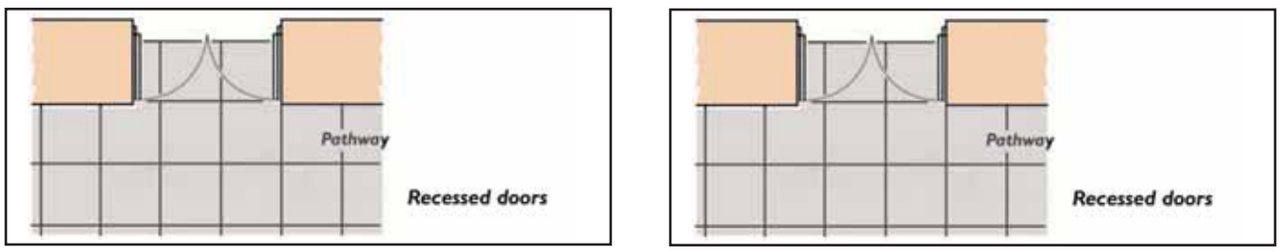


Figure 3. Protection from outward opening doors

ACCESS TO BUILDINGS

13. Ramps BC & PL

If a ramp/ slope has a gradient shallower than 1:20, it is not classed as a ramp, but a path (see section 11). If the gradient is to be 1:20 or steeper, it should be designed in accordance with the latest design guidance on ramps, the key features of which are listed below:

- A minimum surface width between walls, upstands or kerbs of at least 1.5m.
- Handrails should be provided on both sides of the ramp. This means that people who have difficulty using one arm/ side of their body have the option of the handrail on the other side. See handrail section 15 for more details.
- Landings at the foot and head of the ramp at least 1.2m long and clear of any door swings or other obstructions should be provided.
- Any intermediate landings should be at least 1.5m long and again clear of any door swings or other obstructions.
- Intermediate landings at least 1800mm wide and 1800mm long are provided as passing places when it is not possible for a wheelchair user to see from one end of the ramp to the other, or the ramp has three or more flights.
- Landings should be level, subject to a maximum gradient of 1:60 along their length and a maximum cross fall gradient of 1:40.
- No individual ramp flight should have a going greater than 10m, or be overcoming a rise of more than 500mm.
- There should be an alternative means of level access e.g. a lift, where the total rise being overcome is greater than 2m.
- The ramp surface should be slip resistant, especially when wet, and of a colour that contrasts visually with that of the landings (although the frictional characteristics of the ramp and landing surfaces should be similar).
- There should be a kerb on any open side of any ramp or landing at least 100mm high, which contrasts visually with the ramp or landing. One reason for this is for visually impaired people using a white stick- the upstand providing a surface to tap against.
- Where the rise of the ramp is greater than 300mm (equivalent to 2 x 150mm steps), clearly signposted steps should be provided in addition to the ramp, as for some people (for example people with ambulant mobility difficulties) a ramp may be difficult to negotiate, and steps may be easier or more convenient, as the travelling distance may be shorter.
- Ramp gradients should be taken from the following two tables, to ensure that they are safe and as usable as possible for as many people as possible:

Figure 4. Relationship of ramp gradient to the going of a flight

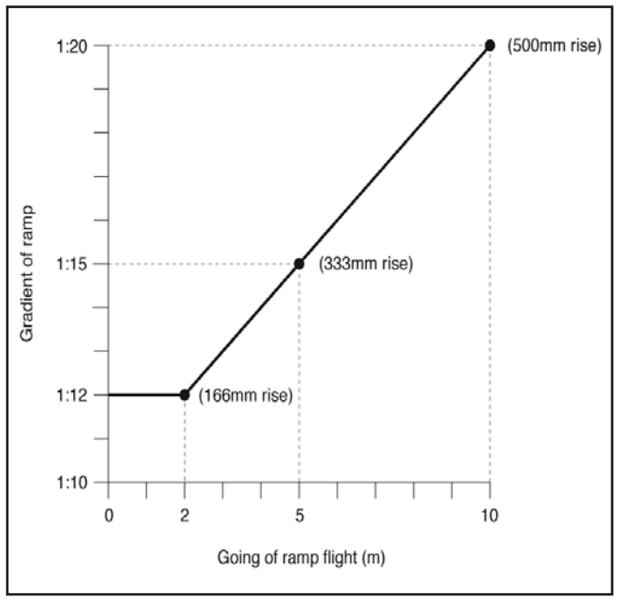


Table 2. Interpolated acceptable ramp gradients

Where go = going of ramp in meters gr = gradient
(1: number shown in table i.e. 14 is 1:14)
r = rise the ramp stage is overcoming in mm

go	gr	r	go	gr	r	go	gr	r
2	**12**	**167**	**5**	**15**	**333**	**8**	**18**	**444**
2.1	12.1	174	5.1	15.1	338	8.1	18.1	448
2.2	12.2	180	5.2	15.2	342	8.2	18.2	451
2.3	12.3	187	5.3	15.3	346	8.3	18.3	454
2.4	12.4	194	5.4	15.4	351	8.4	18.4	457
2.5	12.5	200	5.5	15.5	355	8.5	18.5	459
2.6	12.6	206	5.6	15.6	359	8.6	18.6	462
2.7	12.7	213	5.7	15.7	363	8.7	18.7	465
2.8	12.8	219	5.8	15.8	367	8.8	18.8	468
2.9	12.9	225	5.9	15.9	371	8.9	18.9	471
3	**13**	**231**	**6**	**16**	**375**	**9**	**19**	**474**
3.1	13.1	237	6.1	16.1	379	9.1	19.1	476
3.2	13.2	242	6.2	16.2	383	9.2	19.2	479
3.3	13.3	248	6.3	16.3	387	9.3	19.3	482
3.4	13.4	254	6.4	16.4	390	9.4	19.4	485
3.5	13.5	259	6.5	16.5	394	9.5	19.5	487
3.6	13.6	265	6.6	16.6	398	9.6	19.6	490
3.7	13.7	270	6.7	16.7	401	9.7	19.7	492
3.8	13.8	275	6.8	16.8	405	9.8	19.8	495
3.9	13.9	281	6.9	16.9	408	9.9	19.9	497
4	**14**	**286**	**7**	**17**	**412**	**10**	**20**	**500**
4.1	14.1	291	7.1	17.1	415			
4.2	14.2	296	7.2	17.2	419			
4.3	14.3	301	7.3	17.3	422			
4.4	14.4	306	7.4	17.4	425			
4.5	14.5	310	7.5	17.5	429			
4.6	14.6	315	7.6	17.6	432			
4.7	14.7	320	7.7	17.7	435			
4.8	14.8	324	7.8	17.8	438			
4.9	14.9	329	7.9	17.9	441			

ACCESS TO BUILDINGS

14. Steps BC & PL

All external steps should be designed in accordance with the following design guidance:

- The minimum surface width of the steps, between enclosing walls, strings or up stands, is 1200mm.
- Where the flight has a surface width of 2m or more, additional handrails should divide the flight into channels no less than 1m wide.
- Level landings at least 1200mm long should be provided to the top and bottom of each flight of steps.
- Continuous handrails should be provided on both sides of a flight of steps. For further details on handrails see handrails Section 15.
- Risers should not be open.
- The rise and going of each step should be consistent throughout the flight.
- The rise of each step should be between 150mm and 170mm.
- The going of each step should be between 280mm and 425mm.

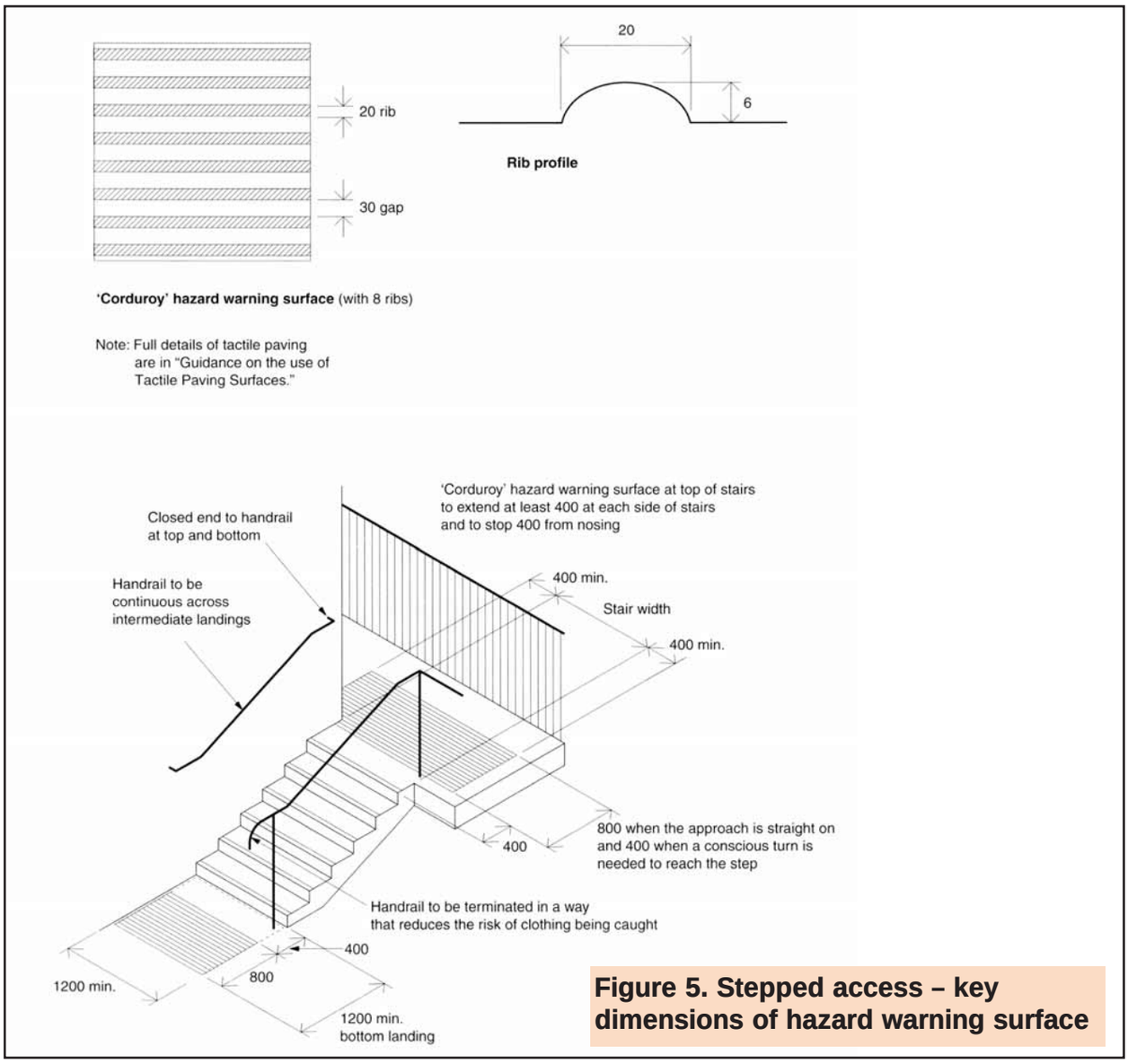
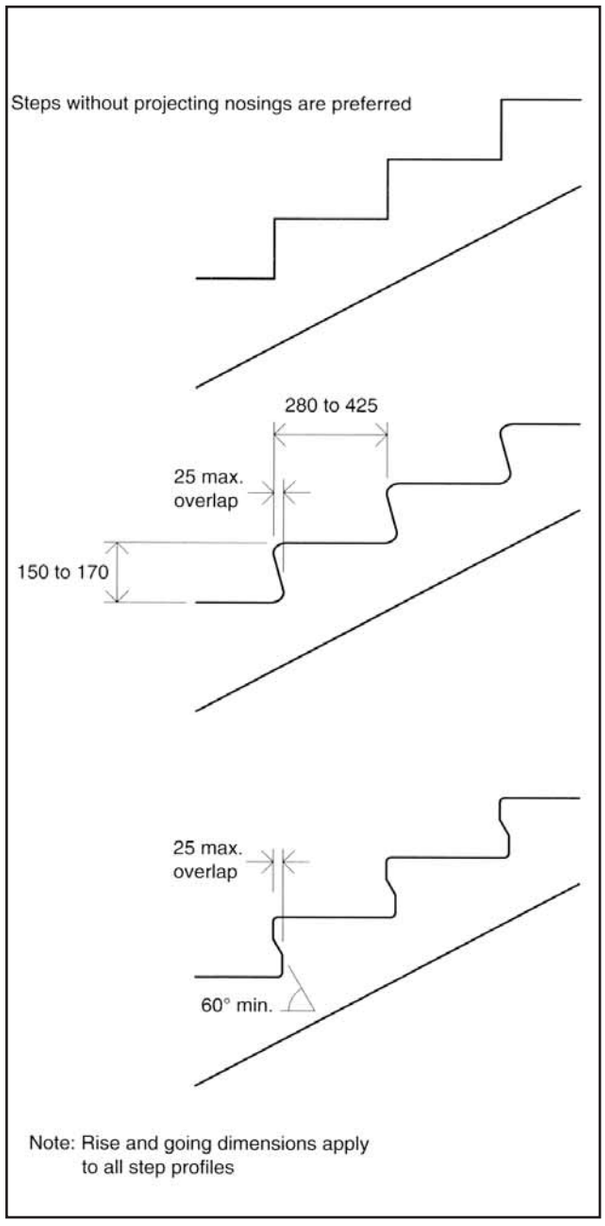


Figure 5. Stepped access – key dimensions of hazard warning surface

Figure 6. Examples of acceptable step profiles and key dimensions for external stairs



- The projection of a step nosing over the tread below should be avoided as this can be problematic for white cane users and people with ambulant mobility difficulties. However if unavoidable, the overlap should be no more than 25mm.
- All step nosings should be made apparent by means of a permanently contrasting material 55mm wide on both the tread and the riser.
- The rise of a flight between landings should contain no more than 12 risers for a going of less than 350mm and no more than 18 risers for a going of 350mm or greater.
- There should be no single steps.
- 'Corduroy' hazard warning tactile paving should be provided at the top and bottom of landings of a series of flights to give advance warning of a change in level. Generally this should be laid to a depth of 800mm, and set back from the top nosing or bottom riser by 400mm. Where there is side access onto an intermediate landing, the tactile paving should be laid to a depth of 400mm, and set back from the nearest nosing or riser by 400mm.

Further details on the layout and use of hazard warning tactile paving can be found in the DETR guide "Guidance on the use of Tactile Paving Surfaces" (1998).

It is very important to lay tactile paving consistently in accordance with the design guidance, to ensure a consistent and predictable pattern for visually impaired people throughout the country.

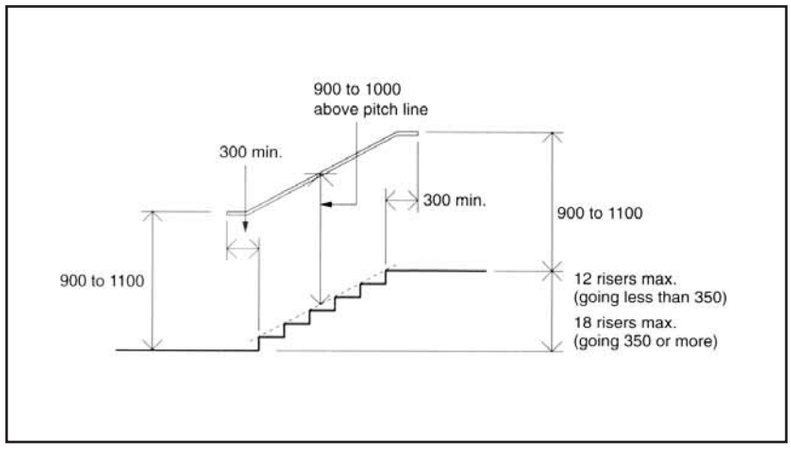


Figure 7. External steps and stairs – key dimensions

Proud to paint

Ian Proud, local painter and decorator.

All types of decorating undertaken: new builds, refurbishments, small commercial properties, private properties, landlord lettings. Good quality work throughout, lots of repeat customers. References available, fully insured, non-smoker. Free estimates given.

Call Cambridge
01223 573820
mobile **07790780087**

TEN ALPS PUBLISHING

Leaders in Specialist Media

- **Full Publishing Services Print and On Line**
- **Advertising and Sponsorship Sales**
- **Website and Web TV Development**
- **Event Management**
- **Media Planning and Buying**
- **Design and Marketing Services**
- **Video and Broadcast Services**
- **Communications Consultancy**

Ten Alps Publishing, Trelawney House, Chestergate, Macclesfield, Cheshire SK11 6DW
Phone: 01625 613000 Fax: 01625 511446 Email: info@tenalpspublishing.com
www.tenalpspublishing.com

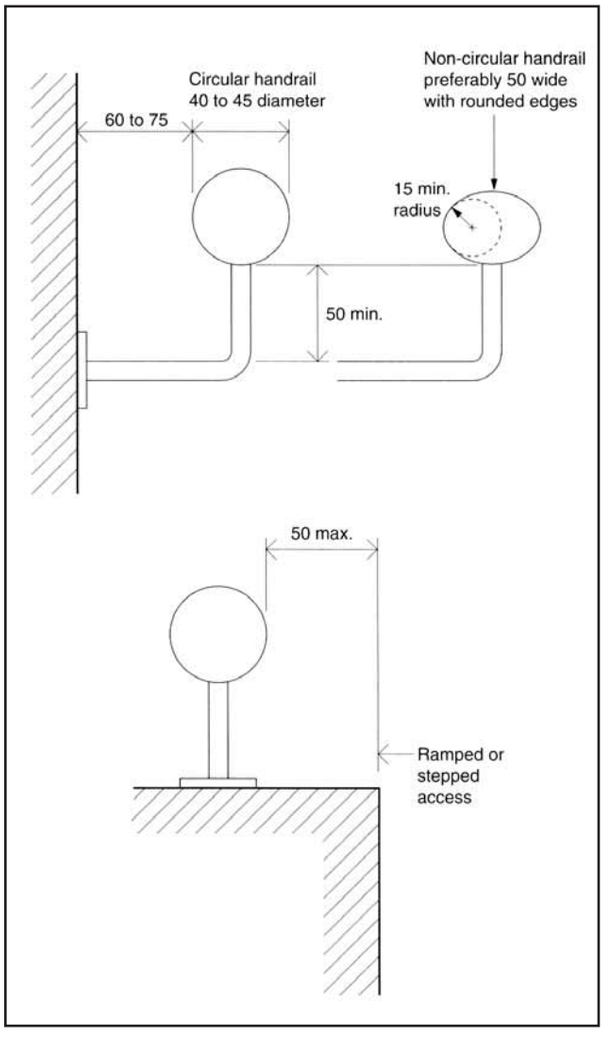
ACCESS TO BUILDINGS

15. Handrails BC & PL

External handrails to slopes, ramps and steps should be designed in accordance with the following guidance:

- The height to the top of the upper handrails, from the pitch line of the surface of a ramp, or a flight of steps, should be between 900mm and 1000mm.
- The height of the handrails from the surface of a landing (to steps or a ramp) should be between 900mm and 1100mm.
- Handrails should extend 300mm horizontally beyond the top nosing and bottom riser of steps, and 300mm beyond the top and bottom of the surface of a ramp. This is to ensure that people can take hold of a handrail before they encounter any change in level. These handrail extensions should not project into any access routes.
- Handrails should be continuous across the flights and intermediate landings or ramped and stepped access.
- Handrails should contrast visually with the background which they are seen against, without being highly reflective and causing glare. This will help visually impaired people identify and use them.
- They should have a slip resistant surface and should not be cold to the touch as this can be particularly painful for people with joint inflammation conditions such as arthritis.
- The profile of handrails should be either circular with a diameter of between 40mm and 45mm, or oval preferably with a width of 50mm.
- It is important that handrails should not protrude any more than 100mm into the surface width of ramped or stepped access.
- There should be a clearance of between 60mm and 75mm between the handrail and any adjacent wall surface.

Figure 8. Handrail design



ACCESS TO BUILDINGS

16. Principal Entrances BC & PL

- The principal entrance should be easily identified among the other elements of the building and the immediate environment, e.g. by lighting and / or visual contrast.
- Any structural supports to the entrance should not present a hazard for visually impaired people.
- There should be a level landing at least 1500mm x 1500mm, clear of any door swings, immediately in front of the entrance and of a material that does not impede the movement of wheelchairs.
- All thresholds should be level, or if a raised threshold is absolutely unavoidable, it should have a total height of not more than 15mm. However, a threshold in excess of 5mm in height should be chamfered or pencil rounded.
- Any door entry systems should be accessible to people who are deaf and hard of hearing and people who cannot speak.
- A floor surface should be provided that will remove rainwater from the soles of shoes and wheelchair wheels in order to prevent the spread of water to floor finishes whose slip resistance relies on them being dry. However internal floor surfaces adjacent to the threshold should not be of materials that impede the movement of wheelchairs e.g. not coir matting. Any changes in flooring material should not create a potential trip hazard.
- Where mat wells are provided, the surface of the mat should be level with the surface of the adjacent floor finish.
- Vision panels should comply with the minimum zone of visibility of between 500mm and 1500mm from floor level, and if it is necessary this can be interrupted between 800mm and 1150mm from the floor to accommodate door furniture.

Manually operated non-powered entrance doors

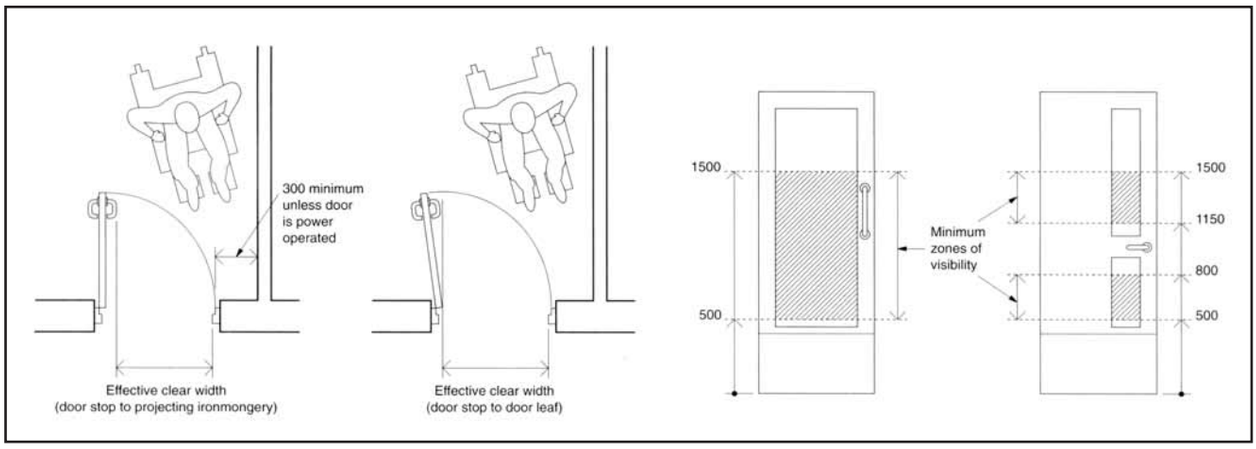
- Self closing devices should be provided as manually operated non-powered swing doors disadvantage many people who have limited upper body strength, are pushing prams or carrying heavy objects, and some wheelchair users.
- The opening force at the leading edge of the door should be no greater than 20N.
- There should be an unobstructed space of at least 300mm on the pull side of the door between the leading edge of the door and any return wall, unless the door is power operated.
- Door furniture should be easy to operate by people with limited manual dexterity. It should be possible to operate door opening furniture with one hand using a clenched fist, one example being a level handle.
- All door opening furniture should contrast visually with the surface of the door and should not be cold to the touch.

Note: It should be noted that double buggies are wider than wheelchairs.

Powered Entrance Doors

- Manual controls for powered door systems should be located between 750mm and 1000mm above floor level, operable with a closed fist and, when on the opening side of the door, set back 1400mm from the leading edge of the door when fully open. They should also contrast visually with the background against which they are seen.
- When swing doors open towards people approaching, visual and audible warnings should be provided of their automatic operation when opening and shutting.

Figure 9. Effective clear width and visibility requirements of doors



ACCESS TO BUILDINGS

17. Door Widths BC & PL

- The effective clear width through a single leaf door, or through at least one single leaf of a double leaf door should be in accordance with Table 3.

Table 3. Minimum effective clear widths of doors

Direction and width of approach	New buildings (mm)	Existing buildings (mm)
Straight-on (without a turn or oblique approach)	800	750
At right angles to an access route at least 1500mm wide	800	750
At right angles to an access route at least 1200mm wide	825	775
External doors to buildings used by the general public	1000	775

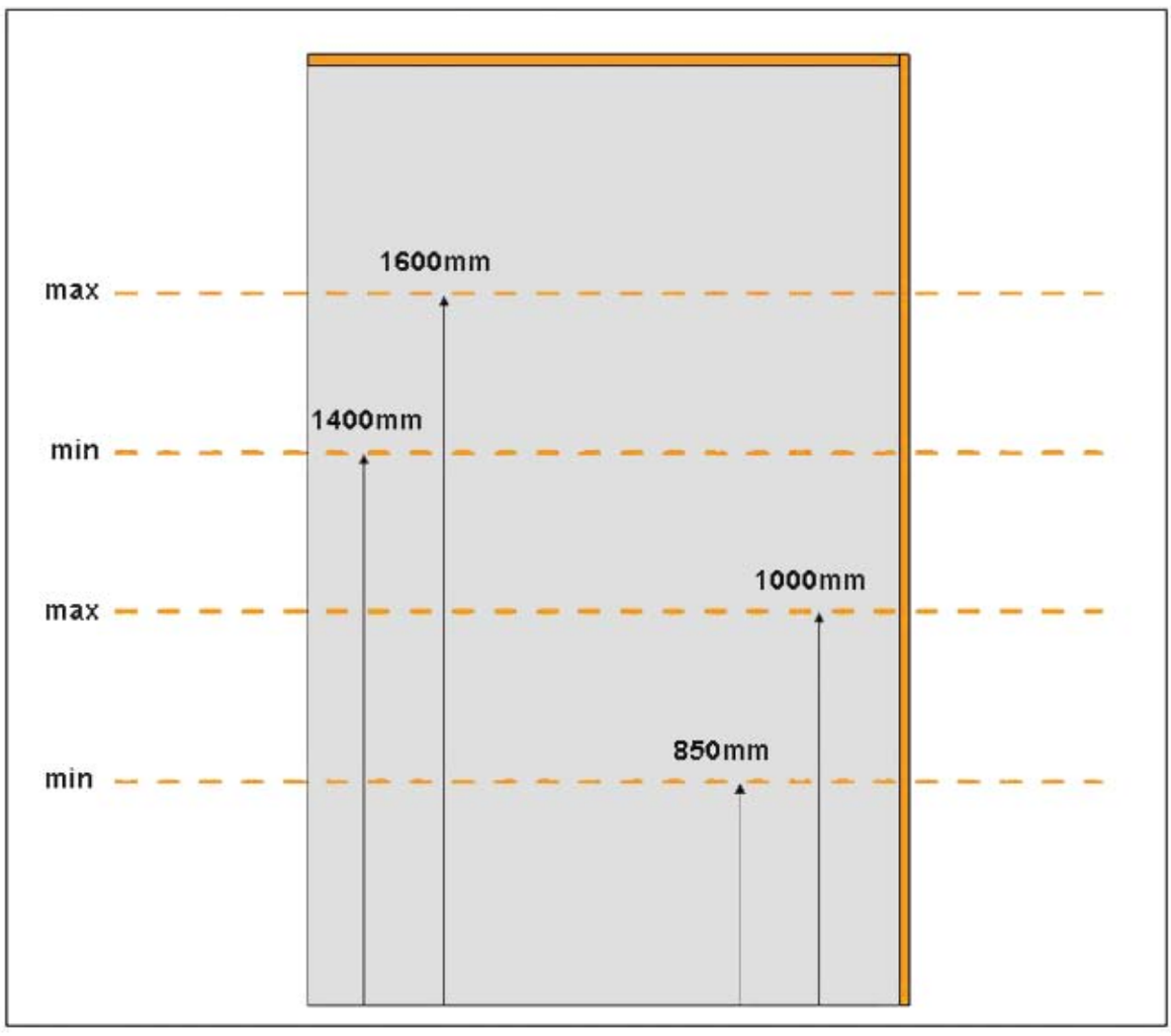
Note:
The effective clear width is the width of the opening measured at right angles to the wall in which the door is situated from the outside of the door stop on the door closing side to any obstruction on the hinge side, whether this be projecting door opening furniture, a weather board, the door, or the door stop (see Fig.9). For specific guidance on the effective clear widths of doors in sports accommodation, refer to 'Access for Disabled People'.

ACCESS TO BUILDINGS

18. Glazing BC & PL

- People with a visual impairment should be in no doubt as to the location of glass entrance doors, especially when they are within a glazed screen. The choice of a different style manifestation for the door and the glazed screen, can help to differentiate between them.
- The presence of the door should be apparent not only when it is shut but also when it is open. Where it can be held open, steps should be taken to avoid people being harmed by walking into the door.
- Glazed entrance doors and glazed screens should be clearly defined with manifestations on the glass at two levels, 850mm to 1000mm and 1400mm to 1600mm above the floor, contrasting visually with the background seen through the glass (both from inside and outside) in all lighting conditions.
- Manifestations should take the form of a logo or sign at least 150mm high (repeated if on a glazed screen), or a decorative feature such as broken lines or continuous bands, at least 50mm high.
- Glazed entrance doors, where adjacent to, or forming part of, a glazed screen, should be clearly differentiated from it by the provision of a high contrast strip at the top, and on both sides.
- Where glass entrance doors are capable of being held open, they should be protected by guarding to prevent the leading edge of the door constituting a hazard.

Diagram 1. Acceptable zones for glazing manifestations

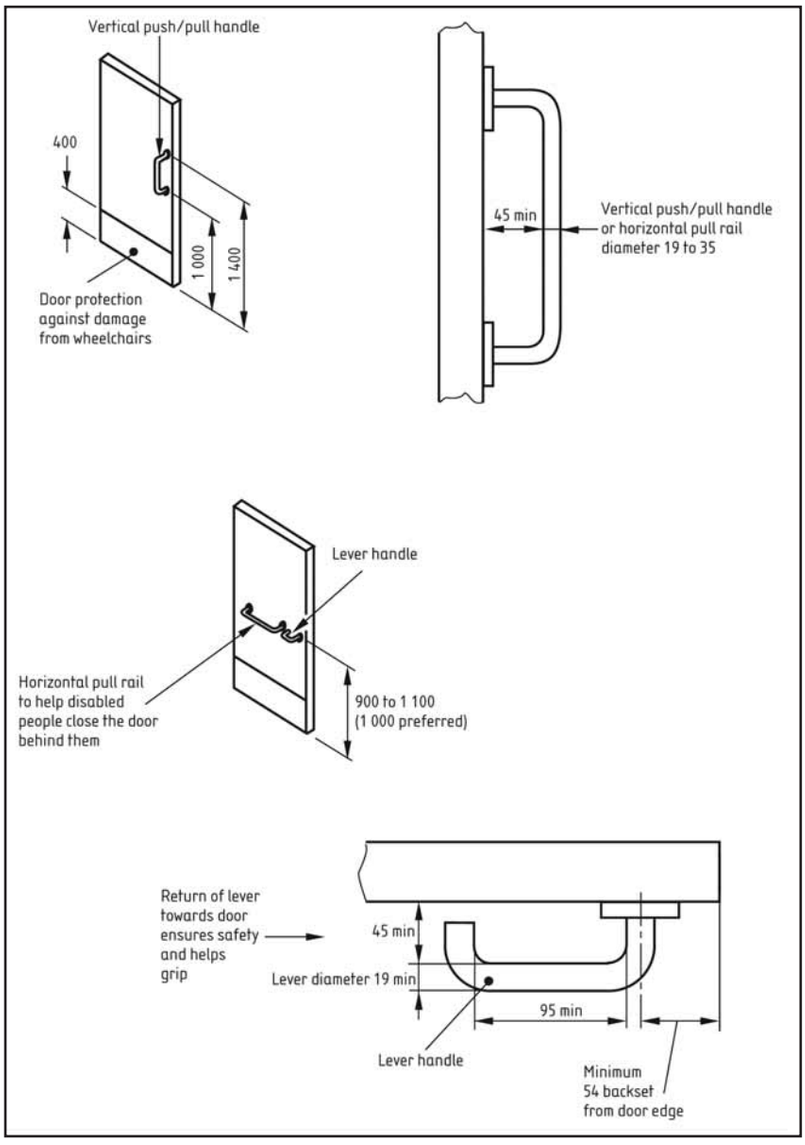


19. Door Furniture BC

- Wherever possible, door- opening furniture with a lever action should be used.
- Door furniture with a spherical, circular or similar design can be difficult to use by people with manual impairment, arthritis or a weak grip.
- It should be possible to operate door opening furniture one handed, without tightly grasping it or twisting the wrists, e.g. by using a closed fist. Care should be taken in the selection of security and fire exit fittings, such as turn buttons, release latches or locks, with the aim of making them manageable for all users.
- For ease of identification by visually impaired people, all door furniture should contrast visually with the surface of the door.
- External handles or door furniture should not be cold to the touch.
- The location and design of door furniture should be consistent throughout a building, and should be located in accordance with the following diagram.

This information and guidance is taken from BS 8300:2001 6.5.

Figure 10. Acceptable locations and designs of door furniture

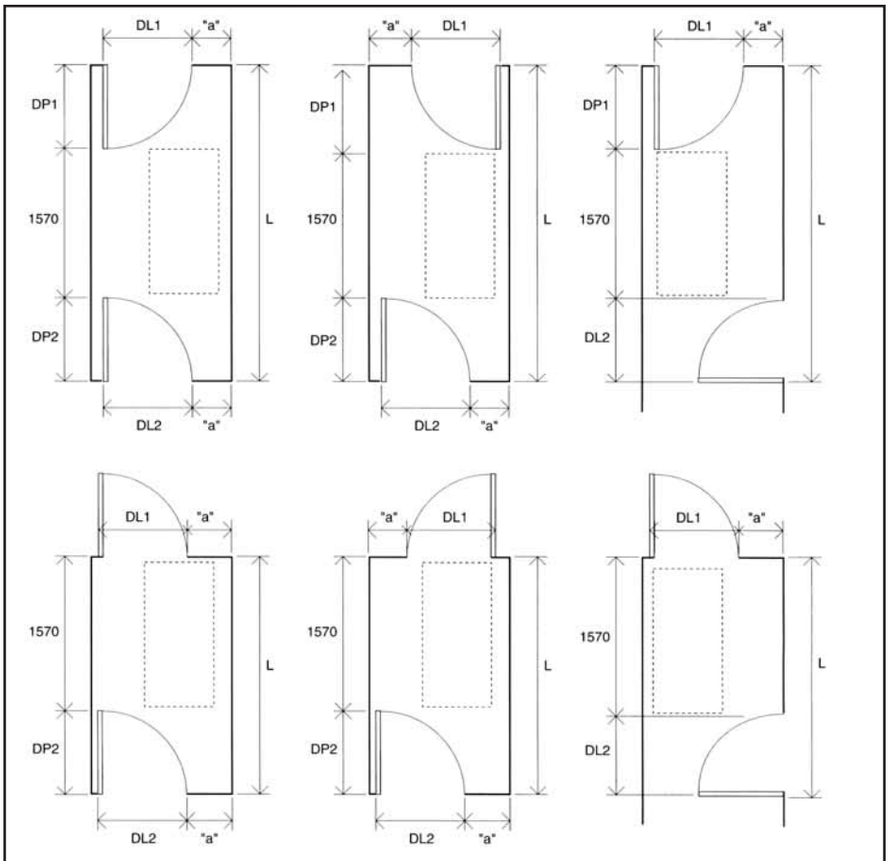


20. Entrance Lobbies BC

- Where entrance lobbies are incorporated in buildings, adequate space must be provided between doors. There should also be space for someone assisting the wheelchair user and for someone passing in the opposite direction.
- Thresholds should be flush, or have a 15mm maximum threshold at both door sets.
- Matwells should be flush (including the surrounds), close fitting and firm, see section 16, page 36.
- The minimum clear door opening widths should apply to the inner doors as well as the outer doors.
- Lighting to reduce the contrast between the outside and the building's interior should be considered, and distracting reflections from glazing should be minimised.
- The floor surface should be level, slip resistant and not impede the movement of wheelchairs, or people with ambulant mobility difficulties. Coir matting should be avoided and any changes in floor materials should not create potential trip hazards.
- The minimum length of the lobby is related to the chosen floor size, the swing of each door, the projection of the door into the lobby and the size of an occupied wheelchair with a companion pushing.
- Where both doors of a lobby are automatic sliding doors, the length can be reduced because the projection of the door into the lobby is reduced.
- Any columns, ducts or similar full height elements that project into the lobby by more than 100mm should be protected by a visually contrasting guard rail.
- The length of a lobby with double swing doors should be at least DP1 + DP2 +1570mm. See Figure 11.
- The lobby width (excluding any projections into the space) should be at least 1200mm (or (DL1 or DL2) + 300mm) whichever is the greater when single leaf doors are used, and at least 1800mm when double leaf doors are used.

Further information on lobbies can be found in Approved Document M.

Figure 11. Key dimensions for lobbies with single leaf doors



DL1 and DL2 = door leaf dimensions of the doors to the lobby
DP1 and DP2 = door projection into the lobby (normally door leaf size)
L = minimum length of lobby, or length up to door leaf for side entry lobby
"a" = at least 300mm wheelchair access space (can be increased to reduce L)
1570 = length of occupied wheelchair with a companion pushing (or a large scooter)

NB: For every 100mm increase above 300mm in the dimension "a" (which gives a greater overlap of the wheelchair footprint over the door swing), there can be a corresponding reduction of 100mm in the dimension L, up to a maximum of 600mm reduction.

21. Entrance Hall and Reception Areas BC

- Suitable access to a reception point and clear signs indicating routes to other parts of the building are important. Any reception point should be easily identifiable from the entrance doors or lobby and have a direct approach which is free of potential obstructions.
- Reception desks should be designed to accommodate both seating and standing visitors. At least one section of the counter should be at least 1500mm wide, no higher than 760mm with a knee recess not less than 700mm from floor level.
- Reception points should be provided with a hearing enhancement system. The reception point should be located in a position where the ability of a person with a hearing impairment to lip read is not impaired e.g. by the presence of windows or a glazed screen behind the reception point.
- Reception counters should not be placed in front of backgrounds which are patterned.
- Any permanent or temporary control barriers which are used e.g. to direct queuing, should be clearly identified as such for the benefit of visually impaired or ambulant disabled people who might attempt to rest against them.

Note: the base of temporary barriers can restrict access for wheelchair users and therefore needs to be taken into account when allowing space for wheelchair access.

- Signs and universally accepted symbols or pictograms indicating lifts, stairs, circulation routes and other parts of the building should be provided. Visual signs should be self-evident and, in particular, legible to visually impaired people. Plain English and pictograms should be used together to assist people with learning difficulties.
- Further information on symbols and pictograms can be found in BS 8501.
- Information on sign design can be found in the Sign Design Guide – inclusive signage published by the Joint Mobility Unit (JMU) in 2000. ISBN 1 85878 4123.
- Guidance on aids to communication can be found in BS 8300:2001.

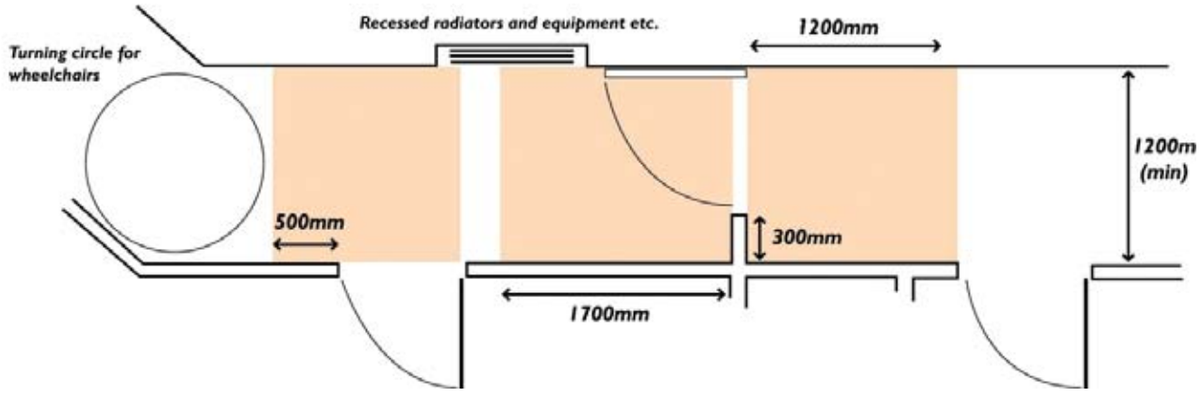
Senate House, Cambridge

ACCESS TO/WITHIN BUILDINGS

22. Corridors and Passageways BC

- Corridors and passageways need to be wide enough to allow wheelchair users to manoeuvre effectively and for other people to pass them. Wheelchair users should also have access to adjacent rooms and space, and should be able to, where necessary, turn through 180°.
- In order to assist visually impaired people in appreciating the size of the space they have entered, or to find their way around, there should be a visual contrast between the wall and the ceiling, and between the wall and the floor. This should be coupled with good natural and artificial lighting design.
- Elements such as columns, radiators and fire hoses should not protrude into the corridor, or where this is unavoidable, a means of directing people around them, such as a visually contrasting guardrail, should be provided.
- Unobstructed widths should be at least 1200mm excluding any projections into the corridor.
- Where the unobstructed width of a corridor is less than 1800mm, passing places should be provided which are at least 1800mm long and 1800mm wide at reasonable intervals (e.g. at corridor junctions) to allow wheelchair users to pass each other.
- A floor area is classed as level if the gradient is not steeper than 1:60. Corridors between 1:20 and 1:60 should overcome a rise no more than 500mm without a level rest area at least 1500mm long.
- If a corridor is 1:20 or steeper, the section on ramps (13) should be referred to.
- Sloping sections should extend the full width of the corridor. If this is not the case, the exposed edge of the slope should be clearly identified by visual contrast, and where necessary protected by guarding.
- Any door opening towards/ into a corridor which is a major access route or an escape route, should be recessed so that when fully open, it should not project into the corridor space (except where the doors are to minor utility facilities, such as small store rooms and locked duct cupboards).
- A door from a wheelchair-accessible toilet that projects into a corridor when open (as these would normally open outwards) is acceptable on corridors which are not major access routes or escape routes, provided the corridor is at least 1800mm wide at that particular point.
- On a major access or escape route which incorporates a series of double doors with leaves of unequal widths, the wider leaf of each set should always be on the same side along the length of the corridor.
- Floor finishes should be slip resistant, and those with patterns that could be mistaken for steps or changes of level, should be avoided.
- Glass screens should display suitable manifestations, see Section 18.

Figure 12. Corridors and passageways - key dimensions



Shaded areas show required unobstructed space requirements for approaching doors. All dimensions are clear widths.

ACCESS TO/WITHIN BUILDINGS

23. Internal Stairs and Ramps BC

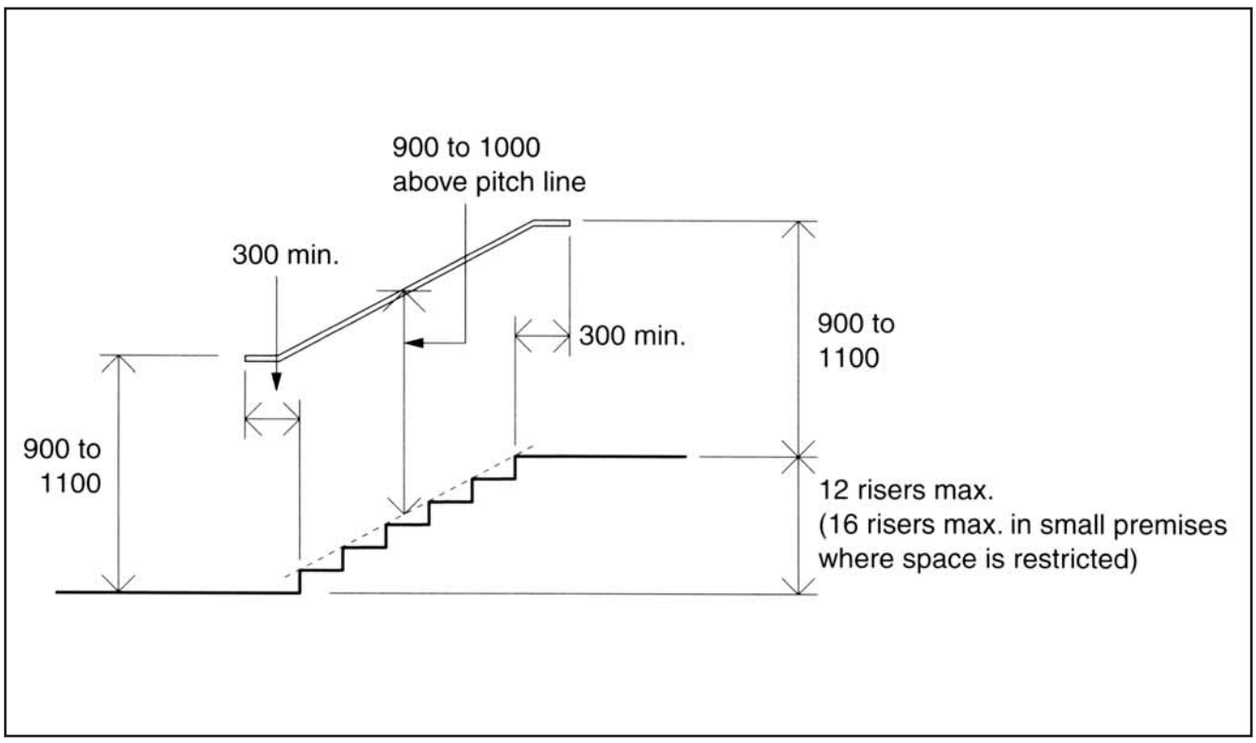
Stairs: Guidance as 9.5 'Stepped Access' except:

- It is not reasonable to require a hazard warning tactile surface to the head and foot of internal stairs, there are currently no nationally recognised standards in this area.
- A flight between landings normally contains no more than 12 risers, but in very exceptional circumstances in small premises where the plan area is restricted, 16 risers would be acceptable.
- The rise of each step should be between 150mm and 170mm, except in existing buildings where, due to dimensional constraints, the case for a different rise is argued in an access statement.
- The going of each step should be at least 250mm.
- The provision for handrails is the same as for stepped access section 14.

Internal Ramps as 9.4 'Ramped Access' except:

- Issues relating specifically to the external environment i.e. handrails not being cold to the touch.
- It should be remembered that ramps are not necessarily safe and convenient for ambulant disabled people. For example, some people who can walk but have restricted mobility find it more difficult to negotiate a ramp than a short stair.
- Where the change in level is 300mm or more, 2 or more clearly signposted steps should be provided in addition to the ramp.
- Where the change in level is less than 300mm, a ramp should be provided instead of a single step.
- All landings should be level, subject to a maximum gradient of 1:60 along their length.

Figure 13. Internal stairs – key dimensions

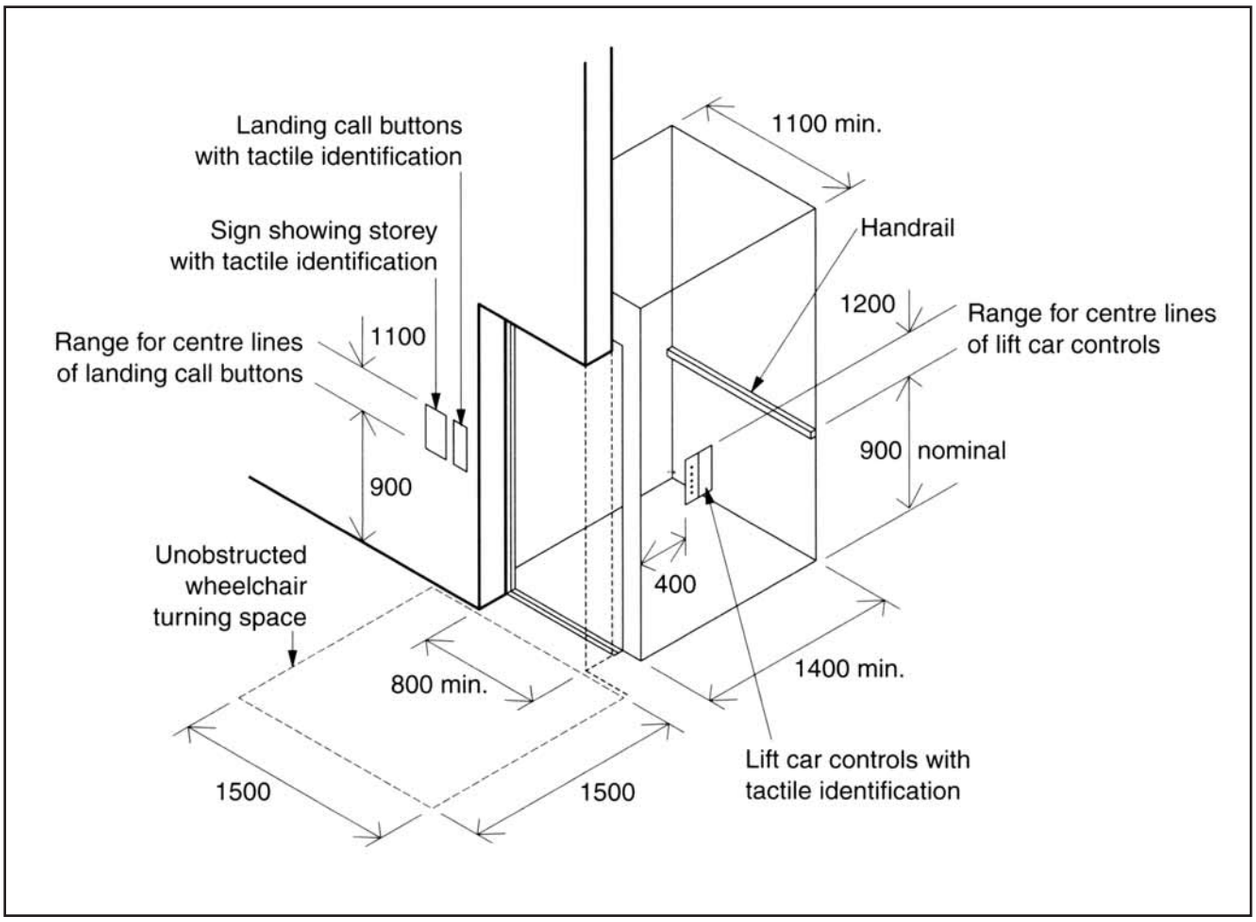


24. Vertical Circulation BC

- For all buildings, a passenger lift is the most suitable form of access for people moving from one storey to another.
- For existing buildings, and in exceptional circumstances for new developments (e.g. a listed building, or an infill site in a historic town centre), where a passenger lift cannot be accommodated, a vertical lifting platform (platform lift), of a type designed for the vertical height to be overcome (e.g. enclosed/not enclosed etc), although not ideal or equivalent to a passenger lift, may be considered as an alternative option to provide access for people with impaired mobility. The case for using such a lifting device instead of a full passenger lift should be argued in an Access Statement.
- Only under very exceptional circumstances in an existing building, should a wheelchair platform stairlift be considered (provided its installation does not conflict with requirements for means of escape). Again the very exceptional case for installing such a device should be argued in an Access Statement.
- New developments should have a passenger lift serving all storeys.
- Passenger lifts should have an unobstructed manoeuvring space of 1500mm x 1500mm, or a straight access route 900mm wide, in front of each lifting device.
- The landing call buttons should be located between 900mm and 1100mm from the floor and at least 500mm from any return wall. The landing call button symbols, where provided, and lifting device control button symbols should be raised to facilitate tactile reading.
- All call and control buttons should contrast visually with the surrounding face plate, and the face plate similarly contrast with the surface on which it is mounted.
- The floor of the lifting device should not be of a dark colour and should have frictional qualities similar to, or higher than, the floor of the landing.
- A handrail should be provided on at least one wall of the lifting device with its top surface at 900mm (min) above the floor and located so that it does not obstruct the controls or the mirror.
- A mirror should be provided in the lift car where the lift dimensions do not allow a wheelchair user to turn around within the lift car (e.g. 1500mm x 1500mm), as this will enable a wheelchair user to see the space behind the wheelchair.
- Power-operated horizontal sliding doors should provide a minimum effective clear opening width of at least 800mm.
- Car controls should be located between 900mm and 1200mm (preferably 1100mm) from the car floor and at least 400mm from any return wall.
- Audible and visual indication of lift arrival and location should be provided in the lift car and the lift lobby.
- Areas of glass should be identifiable by people with impaired vision.
- Where a lift is to be used to evacuate disabled people in an emergency, it should conform to the relevant recommendations of BS 5588-8.

Further information on lift provision, lift type and design can be found in Approved Document M or by contacting your local Building Control Department.

Figure 14. Key dimensions associated with passenger lifts



25. Audience and Spectator Facilities BC

- Audience and spectator facilities fall into 3 categories:

a) Entertainment facilities, e.g. cinemas and theatres

b) Sports stadiums

c) Lecture and conference facilities

General guidance for all 3 categories:

- People with mobility or sensory impairments may need to view from a particular side or sit at the front to lip read or see sign language interpreters.
- Care needs to be taken so that poor lighting or very bright natural light does not make it difficult to see the interpreter.
- Wheelchair users, people who have difficulty using chairs with fixed arms and those with assistance dogs should have the choice of sitting next to whomever they wish.
- Consideration should be given to providing space, either in front of or next to, certain seats for assistance dogs to rest.
- Greater spacing between rows of seats at the rear of a block of seating, or at the end of rows, may provide extra legroom for people of large stature.
- Wheelchair spaces and seats with additional legroom or space for assistance dogs to rest should be provided in a variety of locations throughout the facility, to provide a variety of viewing points and choice for the user.
- The provision of wheelchair spaces in audience seating should be in accordance with the levels indicated in Table 4 above.

Table 4. Provision of wheelchair spaces in audience seating

Seating capacity	Minimum provision of spaces for wheelchairs	
	Permanent	Removable
Up to 600	1% of total seating capacity (rounded up)	Remainder to make a total of 6
Over 600 but less than 10,000	1% of total seating capacity (rounded up)	Additional provision, if desired

Note:
For seating capacities of 10,000 or more, guidance is given in 'Accessible stadia: a good practice guide to the design of facilities to meet the needs of disabled spectators and other users'.

Lecture and Conference Facilities:

- All people should be able to use presentation facilities. Where a podium or stage is provided wheelchair users should have access to it by means of a ramp or lifting platform.
- A hearing enhancement system should be provided. Guidance on hearing enhancement systems can be found in BS 8300:2001.

Figure 15. An example of wheelchair spaces in a lecture theatre

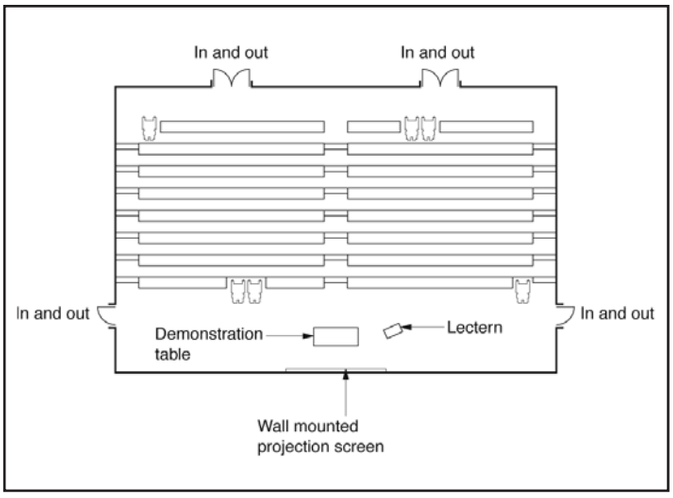


Figure 16. Possible location of wheelchair spaces

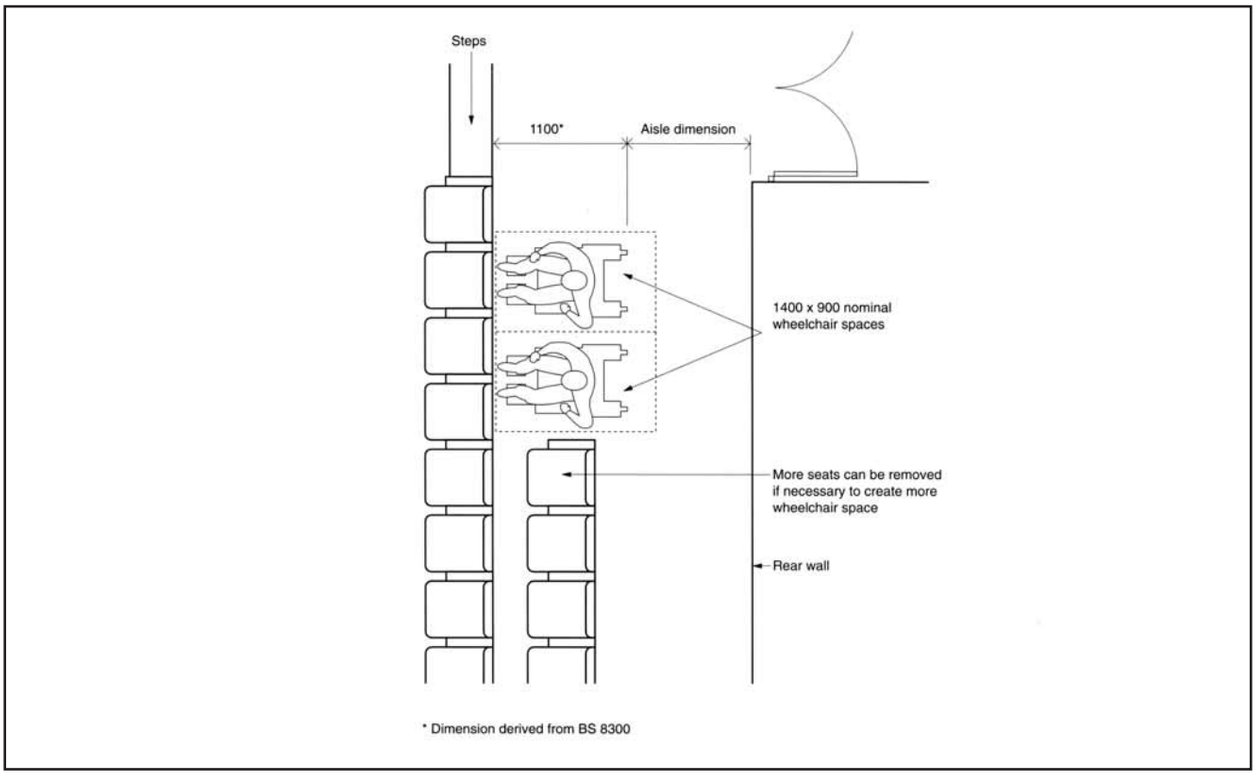
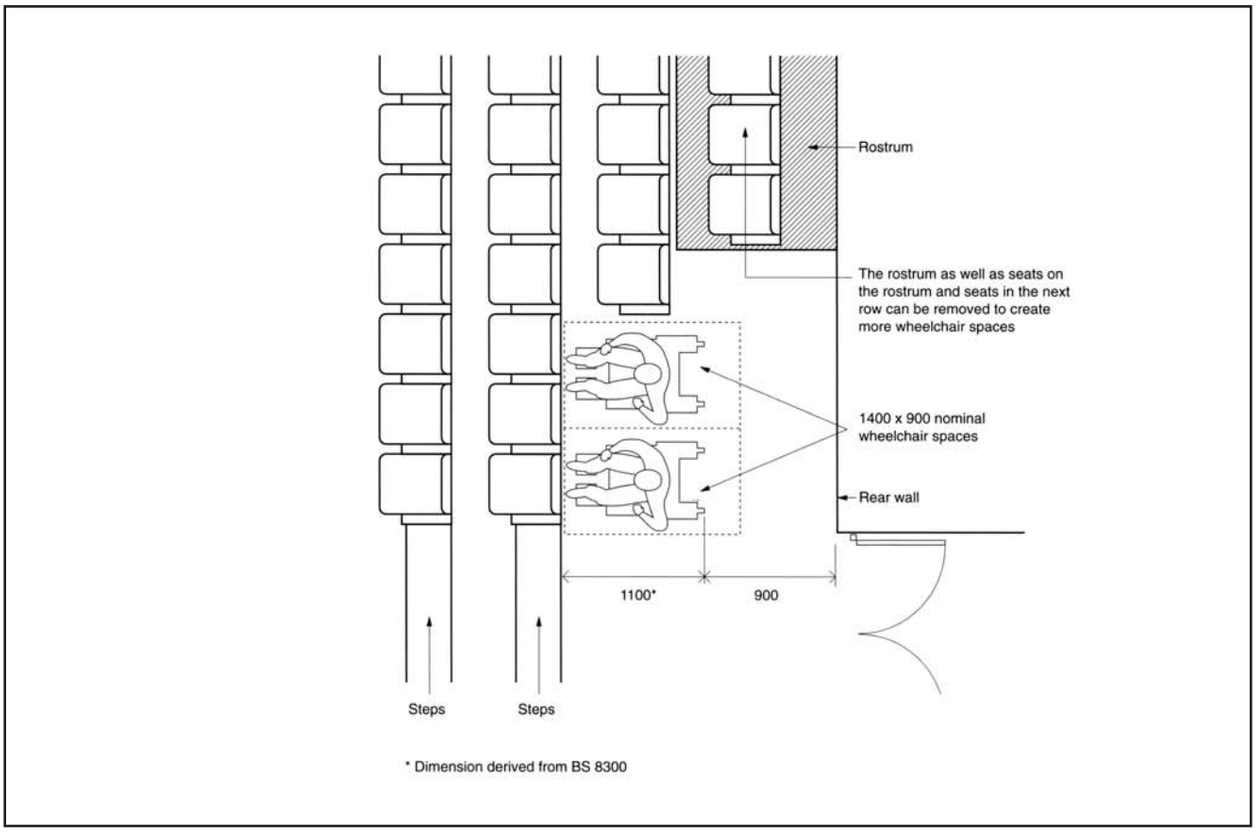


Figure 17. An example of wheelchair space provision in a cinema or theatre



26. Refreshment Facilities BC

All bars, restaurants and refreshment facilities should be designed so that they can be reached and used by all users independently or with companions. Staff areas should also be accessible.

- All users should have access to all parts of the facility.
- All public areas including toilets, public telephones and external terraces should be accessible, as should all self-service and payment points.
- In many restaurants/ refreshment facilities, changes in level are used to differentiate between different functions or to create a certain atmosphere through interior design. Changes in floor level are only acceptable provided the different levels are accessible for everyone.
- Part of any bar/ shared refreshment facility (e.g. for tea making) should be located 850mm above floor level, with a clear space beneath it of at least 700mm above the floor.
- The worktop of a shared refreshment facility (e.g. for tea making) should be at 850mm above the floor with a clear space beneath at least 700mm above the floor.
- A wheelchair accessible threshold (see Section 16) should be located at the transition between any external seating area and the interior facility.

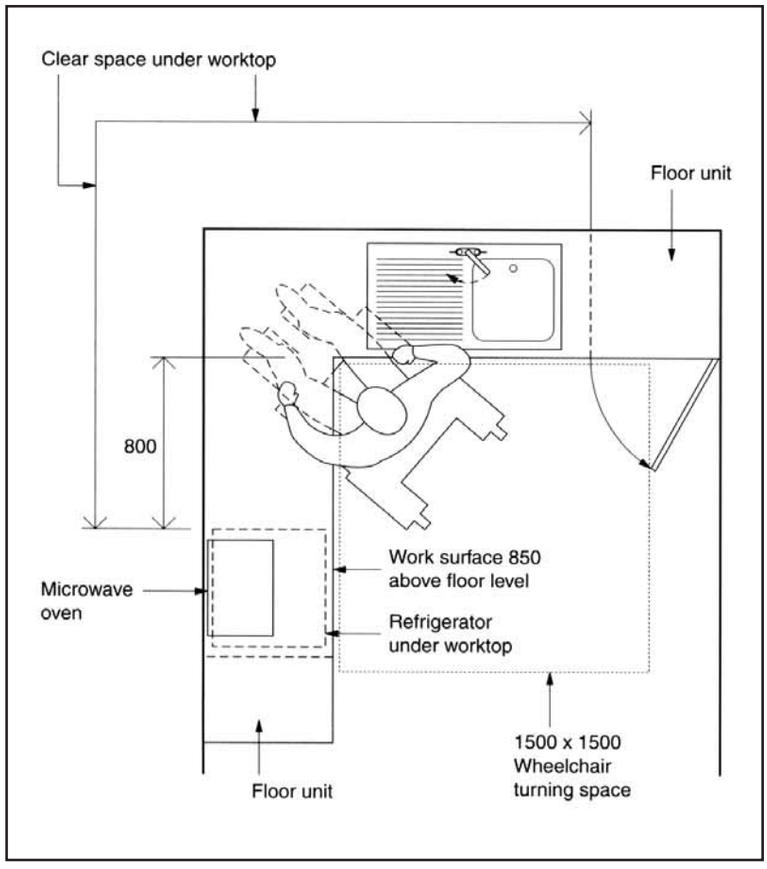


Figure 18. An example of a shared refreshment facility

FACILITIES IN BUILDINGS OTHER THAN DWELLINGS

27. Sleeping Accommodation BC

- Sleeping accommodation where provided for a significant number of people such as hotels, motels and student accommodation, should be convenient for everyone.
- In student accommodation it is beneficial to provide a wheelchair accessible toilet for visitors.

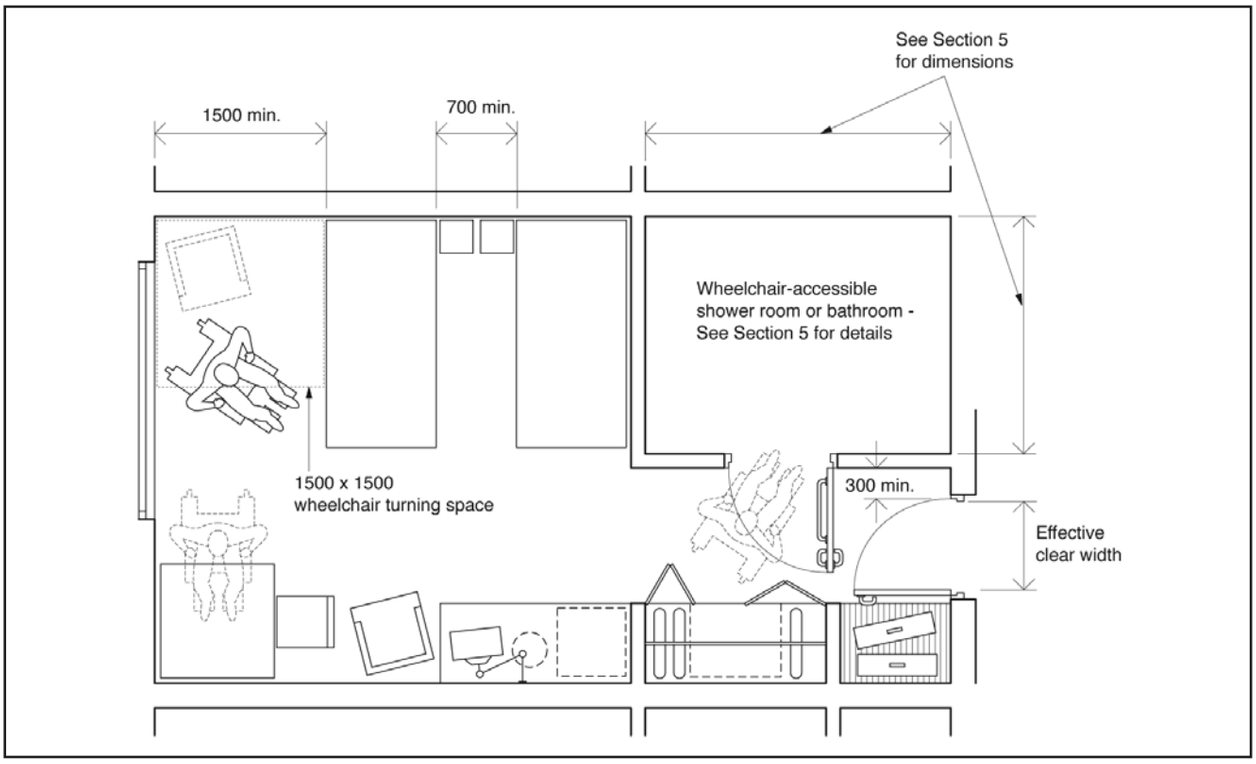
This guidance should be followed for all bedrooms:

- Effective clear width of the door from the access corridor should comply with Table 3.
- Swing doors on wardrobes etc should open through 180 degrees.
- Handles on hinged and sliding doors should be easy to grip and operate and contrast visually with the door.
- All bedrooms should have a visual fire alarm signal in addition to the requirements of Approved Document B.
- Room numbers should be indicated in embossed characters.

Wheelchair Accessible Bedrooms

- In hotels, motels and student accommodation, at least 1 in 20 bedrooms should be wheelchair accessible. Further information on definitions can be found in Part M.
- The wheelchair accessible bedrooms should be located to provide a choice of location and be on accessible routes to all the facilities.
- They should be of the same standard as all other bedrooms.

Figure 19. One example of a wheelchair-accessible hotel bedroom with en-suite sanitary facilities



- The entrance doors to the bedroom and to the en-suite facility should comply with Table 3 and have a maximum opening pressure of 20N.
- En-suite facilities should comply with the provisions for wheelchair accessible bath and shower facilities. See Section 31.
- The size of the room should allow a wheelchair user to manoeuvre at the side of the bed and transfer independently i.e. 1500mm x 1500mm, see Figure 19.
- An emergency assistance alarm and reset button should be located in the bedroom and be activated by a pull-cord that can be operated from the bed or the floor.
- Openable windows and window controls should be located between 800mm and 1000mm above the floor and be easy to operate without the need to use both hands simultaneously.
- On the outside of the room, the call signal should be easily seen and heard and linked to a central control point.
- Wide angle viewers, where provided to the entrance door to a wheelchair-accessible bedroom, should be located at 1050mm and 1500mm above floor level, to enable viewing by people who are seated or standing.
- Where a balcony is provided to a wheelchair-accessible bedroom, it should have a door whose effective clear width is in accordance with those featured in Table 3, Section 17. It should have a level threshold and not horizontal transoms between 900mm and 1200mm above the floor.
- There should be no permanent obstructions in a zone 1500mm back from any balcony doors.

Further guidance on wheelchair accessible bedrooms can be found in Approved Document M.

FACILITIES IN BUILDINGS OTHER THAN DWELLINGS

28. Switches, Outlets and Controls BC

- The key factors which affect the use of switches, outlets and controls are ease of operation, visibility, height and freedom from obstruction.
- A consistent relationship with doorways and corners will reinforce the ease with which people locate and use switches and controls.
- All users should be able to locate a control, know which setting it is on, and use it without inadvertently changing its setting.
- Controls that contrast visually with their surroundings are more convenient for visually impaired people, as are light switches that are activated by a large push pad. The colours red and green should not be used in combination with each other as indicators of ‘on’ and ‘off’ for switches and controls. It may be useful to use text or a pictogram to clarify the purpose and status of multiple switches and controls.
- It is also an advantage if individual socket outlets on panels and on multiple socket outlets are well separated, or in the form of large touch plates, to avoid the inadvertent selection of an adjacent control by visually impaired people or people with limited dexterity.
- Wall mounted socket outlets, telephone points and television sockets should be located between 400mm and 1000mm above the floor with a preference for the lower end of the range.
- Switches for permanently wired appliances should be located between 400mm and 1200mm above the floor.
- All switches and controls that require precise hand movements should be located between 750mm and 1200mm above the floor.
- Controls that need close vision should be located between 1200mm and 1400mm from the floor, so, for example, readings can be taken from a seated or standing position.
- Sockets should be at least 350mm from any room corners.
- Light switches for use by the general public should be large push pads and align horizontally with the door handles within the range between 900mm and 1100mm from the floor. Where this cannot be achieved pull cords should be provided in the same height range.
- The front plates of sockets should contrast visually with the background and have a clear indication that they are ON.

FACILITIES IN BUILDINGS OTHER THAN DWELLINGS

29. Aids to Communication and way finding BC

- People will benefit most if there is an integrated system for wayfinding, public address and hearing enhancement.
- The appropriate choice for floor, wall and ceiling surface materials and finishes can help visually impaired people appreciate the boundaries of rooms or spaces, identify access routes and receive information. For example, glare and reflections from shiny surfaces and large repeating patterns should be avoided in spaces where visual acuity is critical as they will hamper communication for people with impaired vision and those who lip read or use sign language. This would apply in particular to locations such as reception areas with enquiry desks and speakers rostrums in lecture halls.
- A clearly audible public address system should be provided, and supplemented by visual information.
- Provision for a hearing enhancement system should be made, and it should be installed in rooms and spaces designed for meetings, lectures, classes, performances, spectator sports or the showing of films, and at service or reception counters when they are situated in noisy areas or behind glazed screens.
- The presence of an induction loop or infrared hearing enhancement system is indicated by the standard symbol (see below).
- Telephones suitable for hearing aid users should be clearly indicated by the standard ear and ‘T’ symbol (below) and incorporate an inductive coupler and volume control.
- Text telephones for deaf and hard of hearing people should be clearly indicated by the standard symbol.
- Artificial lighting should be designed to be compatible with other electronic and radio frequency installations.
- Detailed guidance on surface finishes, visual, audible and tactile signs, as well as the characteristics and appropriate choice and use of hearing enhancement systems, can be found in BS8300:2001.

Figure 20. Communication Symbols:
‘T’ symbol, textphone symbol and facilities for deaf people

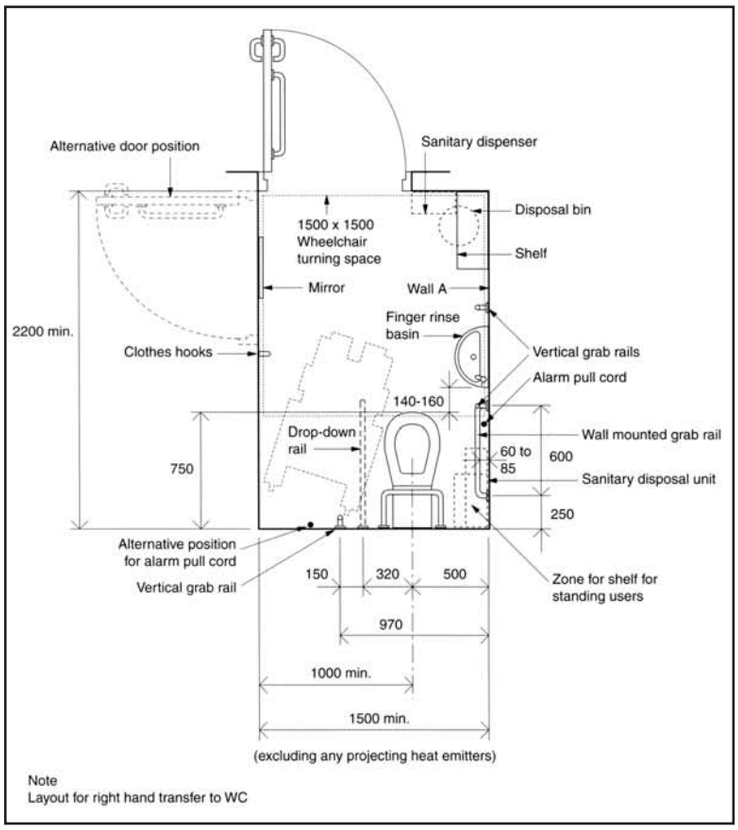
FACILITIES IN BUILDINGS OTHER THAN DWELLINGS

30. Sanitary Conveniences BC

Wheelchair Accessible Toilets

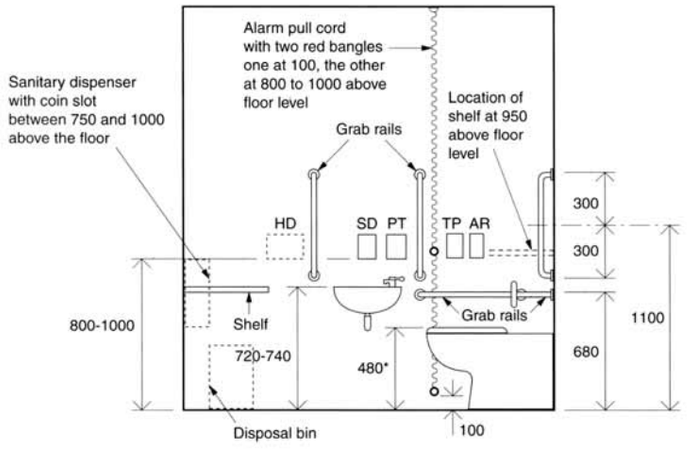
- The minimum dimensions for a wheelchair accessible toilet are 1500mm x 2200mm.
- Where there is space for only one toilet in a building, it must be a unisex wheelchair accessible toilet, but of a greater width to accommodate an additional wash basin at standing height. The width should be increased from 1.5m to 2m.
- At least one unisex wheelchair accessible WC should be located where toilets are provided for customers, visitors or staff.
- A unisex wheelchair accessible toilet should be located as close as possible to the entrance and/ or waiting area of a building. However it should not be located in a way which compromises the privacy of users.

Figure 21. Unisex wheelchair-accessible toilet with corner WC



- The wheelchair accessible toilets should be located in a similar position on each floor of a multi-storey building, and allow for right and left hand transfer on alternate floors.
- Doors should be outward opening with a horizontal closing bar on the inside face.
- A wheelchair user should not have to travel more than 40m on the same floor or more than 40m combined horizontal travel if the toilet is on another floor of the building and is accessible by passenger lift. In buildings with a lifting platform vertical travel to the toilet should be limited to one storey.
- Heat emitters should be screens or their surface temperature kept below 43 degrees centigrade.
- Baby change facilities should not be located within designated disabled persons toilets. If someone is using the disabled persons toilet to change or feed a baby, this can mean the disabled persons toilet is unavailable for disabled people to use, for a significant amount of time.
- All fittings and grab-rails should contrast visually with the background wall and floor finish, and there should be contrast between the walls and floor.

Figure 22. Heights and arrangement of fittings in a unisex wheelchair-accessible toilet (looking towards wall A in Figure 21.)

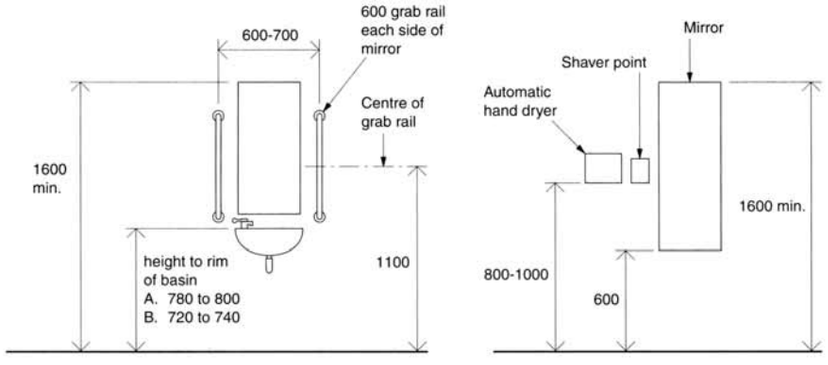


*Height subject to manufacturing tolerance of WC pan

HD: Possible position for automatic hand dryer (see also Fig. 34)
SD: Soap dispenser
PT: Paper towel dispenser
AR: Alarm reset button
TP: Toilet paper dispenser

Height of drop-down rails to be the same as the other horizontal grab rails

Figure 23. Heights of various fittings in toilet accommodation



Height of independent wash basin and location of associated fittings, for wheelchair users and standing people

A. For people standing
B. For use from WC

Mirror located away from wash basin suitable for seated and standing people (Mirror and associated fittings used within a WC compartment or serving a range of compartments)

General Toilet Advice

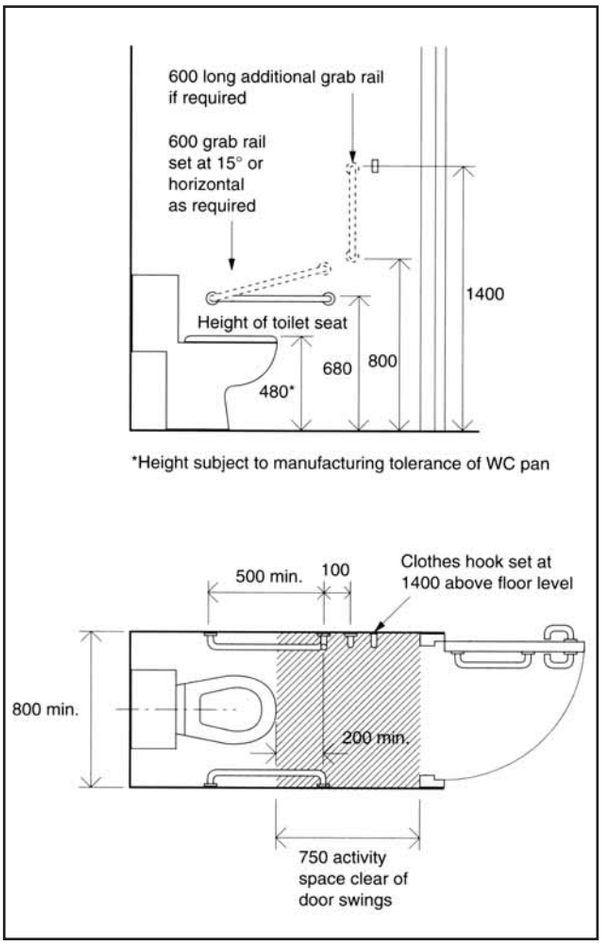
- At least one WC cubicle should be provided in separate sex toilet accommodation for use by ambulant disabled people. This should be designed in accordance with Figure 24. WC cubicle for ambulant disabled people.
- In addition to this, where there are 4 or more WC cubicles in separate sex toilet accommodation, one of these should be an enlarged cubicle for use by people who need extra space, for example people with ambulant mobility difficulties, parents with young children or people

with shopping or luggage. This should measure 1200mm wide, and include a horizontal grab bar adjacent to the WC, a vertical grab bar on the rear wall and space for a shelf and fold-down changing table.

- A wheelchair accessible compartment, where provided within separate sex toilet accommodation, has the same layout as the unisex-wheelchair accessible toilet – Figure 21.
- Taps on washbasins or baths should be controlled automatically or be operable using a closed clenched fist, e.g. level action.
- Door handles and other ironmongery should comply with the provisions for internal doors Section 19. The layout for these is illustrated in Fig 10.
- Doors to WC compartments and wheelchair accessible unisex toilets, changing or shower rooms should be fitted with light action privacy bolts so they can be operated by people with limited dexterity. If required to self- close, they should be operable with a force no greater than 20N.
- Any fire alarm should emit a visual and audible signal.
- Heat emitters should be screened or their surface temperature kept below 43 degrees centigrade.
- All fittings and grab-rails should contrast visually with the background wall and floor finish, and there should be contrast between the walls and floor.
- Emergency assistance alarms should have:

a) Visual and audible indicators to confirm an emergency call has been received.

Figure 24. WC cubicle for ambulant disabled people



b) A signal which is different to the fire alarm.

c) A re-set control reachable from a wheelchair or shower/ changing seat.

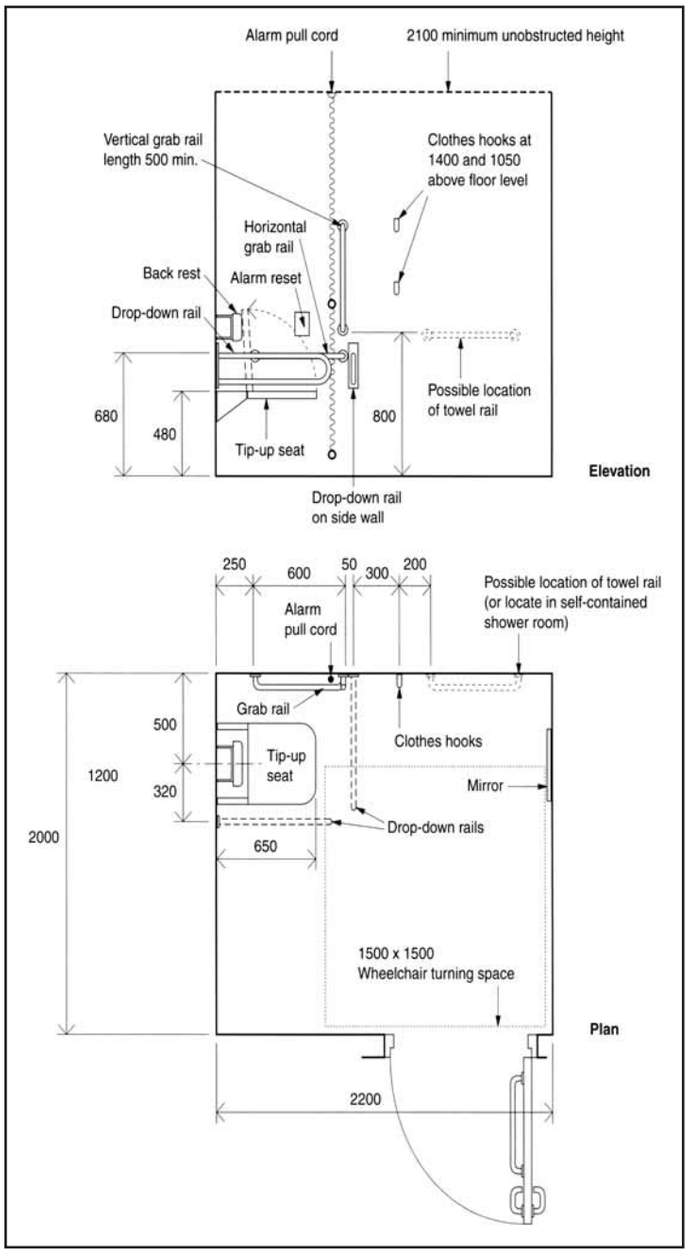
d) Lighting controls to conform to the provisions for switches and controls.

Note: One potential problem in toilets for visually impaired people, is when there is not enough colour and tonal contrast between the floor, walls, toilet and sink. If all of these features are white, a visually impaired person could find it difficult to identify objects within the facility.

31. Wheelchair Accessible Changing and Shower Facilities BC

- Where more than one unit is provided provision for left or right handed transfer should be made.
- A wall mounted drop down support rail and wall mounted, slip resistant tip up seats (not spring loaded) should be provided.
- In sports facilities individual self-contained shower facilities should be provided in addition to communal separate sex facilities.
- A shower curtain should be provided that covers the seat and rails when in the horizontal position and can be opened and closed from the shower seat.
- An emergency assistance pull cord should be easily identifiable and be reached from the seat or the floor. The assistance alarm should be as for sanitary toilets Section 30.
- Facilities for limb storage should be included for the benefit of amputees.
- When associated with shower facilities the floor should be level and slip resistant when dry or wet, and self draining.
- There should be a manoeuvring space of at least 1500mm deep in front of any lockers.
- Where showers are provided in commercial developments for the benefit of staff, at least one wheelchair accessible shower compartment should be provided.
- Shower controls in communal showers whether wheelchair accessible or not, should be positioned between 750mm and 1000mm above the floor level.

Figure 25. An example of a self-contained changing room for individual use



- A shelf that can be reached from the shower seat or from the wheelchair, before or after transfer, should be provided for toiletries.

Shower facilities incorporating a WC:

- A choice of left-hand and right-hand transfer layouts should be available when more than one shower area incorporating a corner WC is provided.

NOTE: Accessible shower facilities should not double up as the only disabled persons toilet. If someone is having a shower, this makes the disabled persons toilet unusable for a considerable period of time and the toilet facilities are likely to be slippery and wet.

Figure 26. An example of a self-contained shower room for individual use

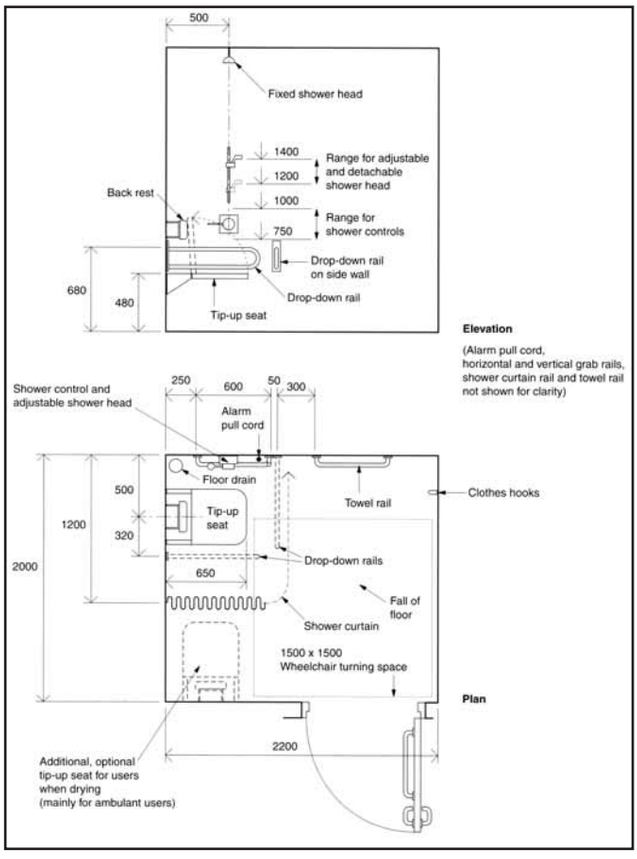
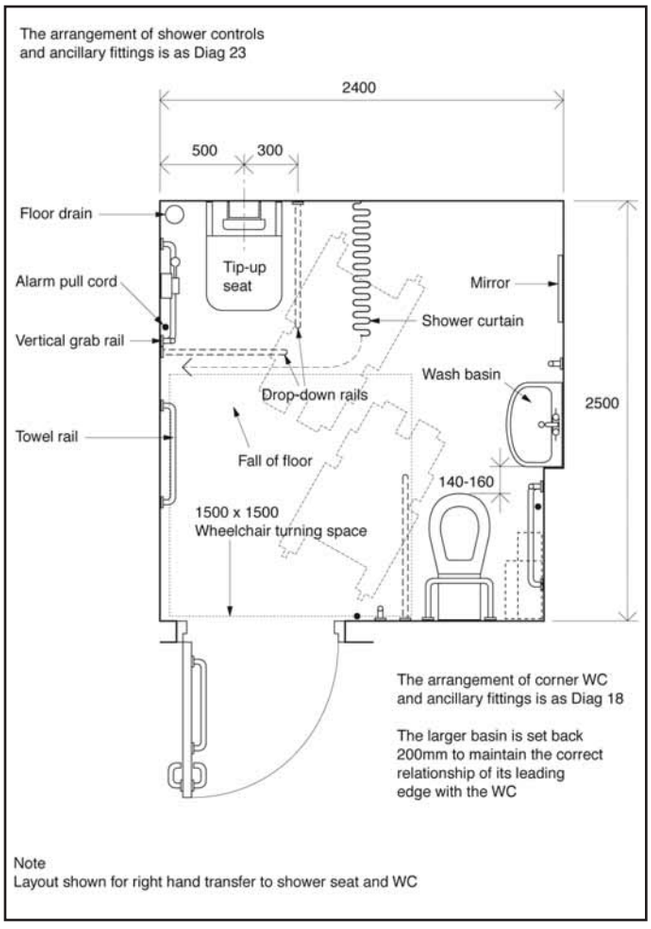


Figure 27. An example of a shower room incorporating a corner WC for individual use



32. Wheelchair Accessible Bathrooms BC

- This guidance covers wheelchair accessible bathing facilities in hotels, motels, student accommodation and relatives' accommodation in hospitals.
- A choice of left or right handed transfer should be provided where more than one accessible bathroom is provided.
- The bath should be provided with a transfer seat 400mm deep and equal to the width of a bath.
- Doors should open outwards and be fitted with a horizontal closing bar fixed to the inside face.
- The room should be fitted with a pull cord and assistance alarm.

Figure 28. An example of a bathroom incorporating a corner WC

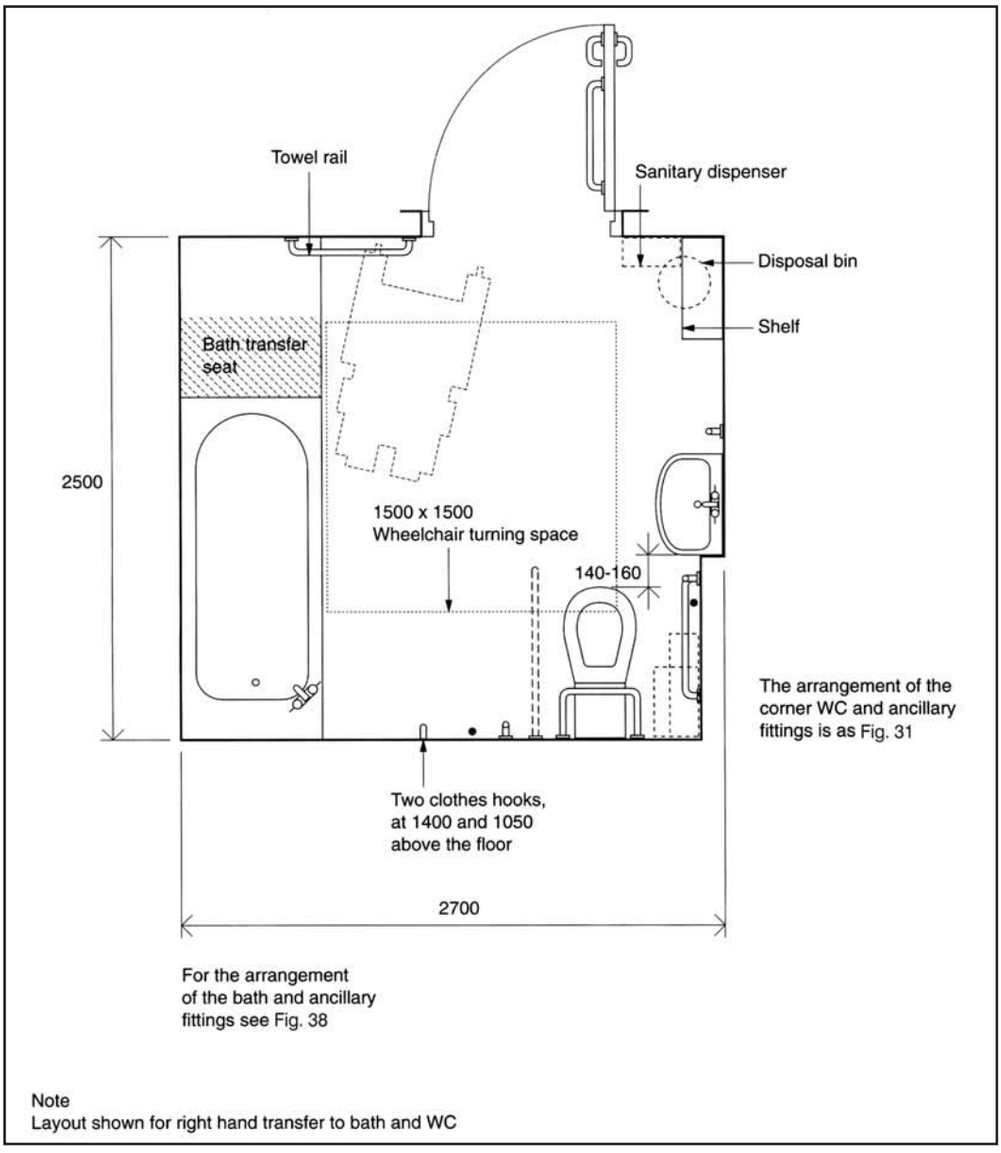
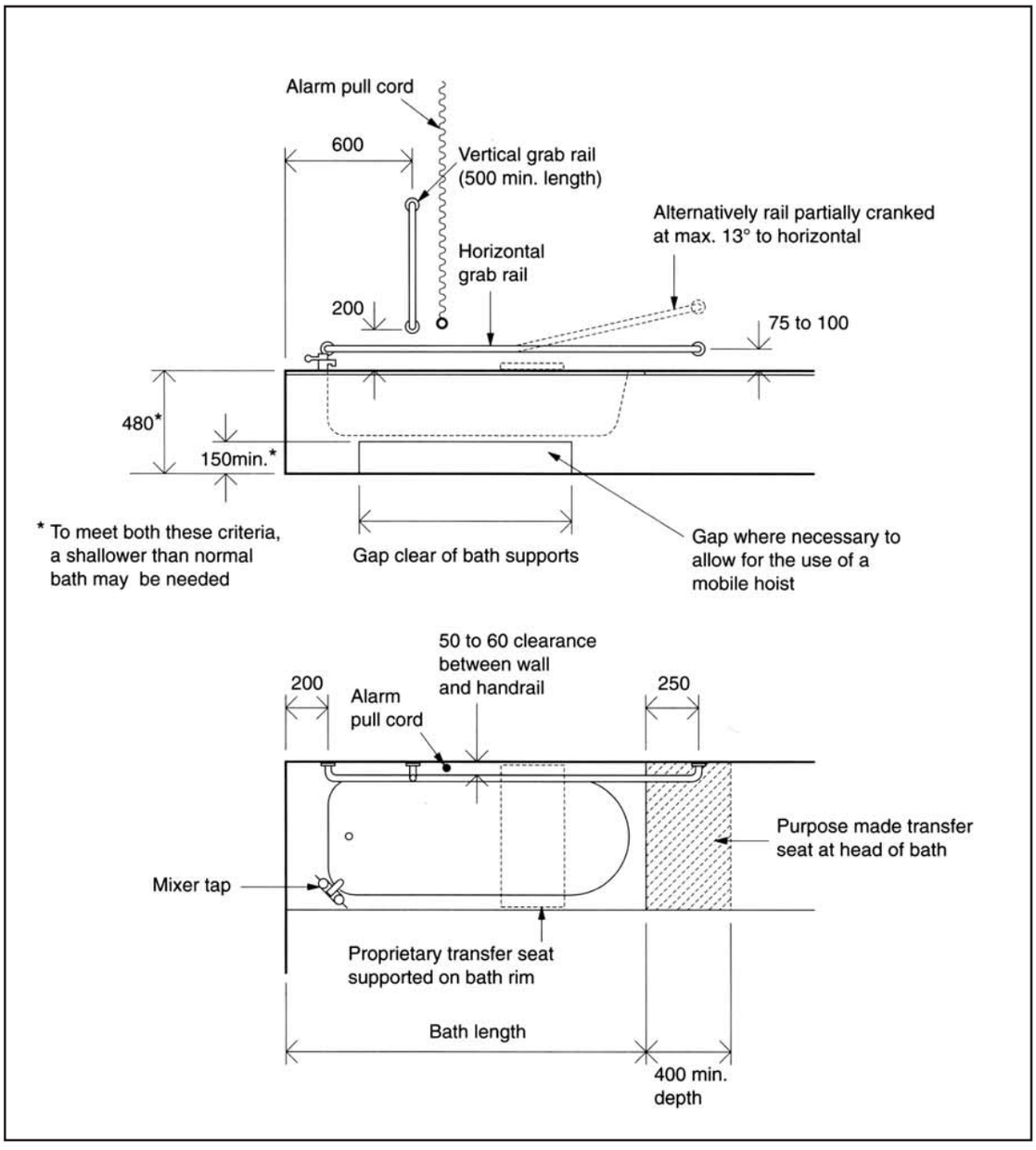


Figure 29. Grab rails and fittings associated with a bath



33. Accessibility BC

- On 25th October 1999, Part M of the Building Regulations was amended to improve accessibility for visitors to all new dwellings. It is not intended to create lifetime homes, but provide reasonable access within the boundaries of the plot of the dwelling for a disabled person to approach and gain access into the dwelling from the point of alighting from a vehicle which may be within or outside the plot.
- Generally, a level or ramped approach is required to the principal entrance. The surface of this approach should be firm, and even. Loose laid materials such as gravel or shingle are not suitable.
- A suitable level approach would be one with a gradient no steeper than 1:20, and not less than 900mm wide.
- If the topography of the site is such that the route from the point of access towards the entrance has a plot gradient exceeding 1 in 20, but not exceeding 1 in 15, a ramped approach would be acceptable under Approved Document M.
- A ramped approach to a dwelling should have a firm and even surface, and flights with unobstructed widths of at least 900mm. It should have individual flights not longer than 10m for a gradient no steeper than 1 in 15, or flights no longer than 5m for gradients no steeper than 1 in 12. It should also have top and bottom landings and, in addition if necessary, intermediate landings, each of whose lengths are no less than 1.2m, clear of any door or gate swing.
- If the topography is such that the route from the point of access to the entrance has a plot gradient exceeding 1 in 15, a stepped approach would be acceptable. The stepped approach should be designed in accordance with Figures 30 and 31 below.
- Access to the dwelling or block of flats must be via an accessible threshold. This should be designed to take into account the requirements of other parts of the Building Regulations including resistance to weather and ground moisture.

Figure 30. Ambulant staircase

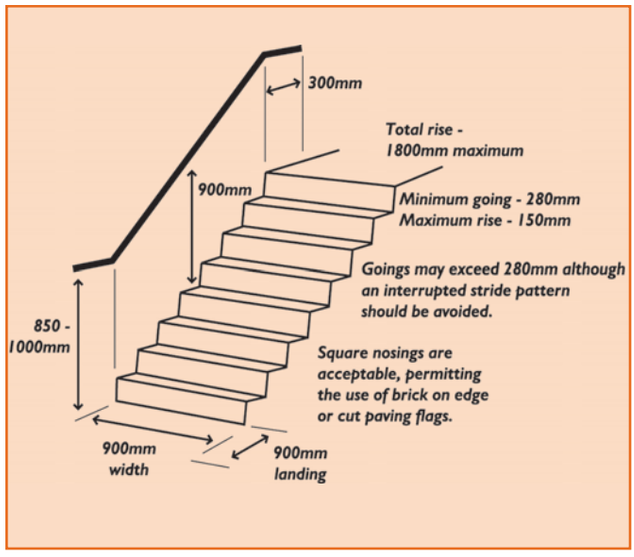
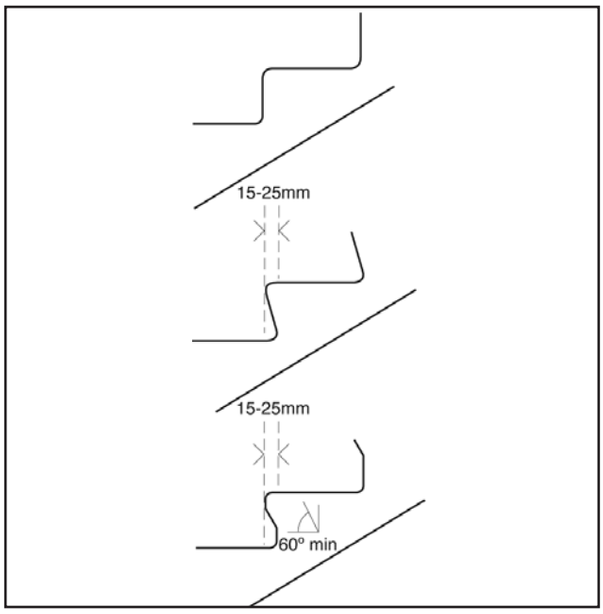


Figure 31. External step profile



34. Circulation BC

Circulation within the entrance storey of the building must be possible for wheelchair users, providing access via doorways, corridors and passageways to the kitchen, habitable rooms and a room containing a W.C. Figure 33 illustrates dimensions for corridors and passages.

The DETR published a design guidance for accessible thresholds in new housing, which is available from The Stationery Office (ISBN 011 702333 7). This document provides design solutions for suitable thresholds in many situations which minimise the risk of moisture ingress. Guidance is provided on suitable sill and threshold profiles, provision of drainage channels, treatment of internal floor finishes and external hard landscaping.

- An obstruction free zone of 900mm wide must be maintained outside the w.c. and opposite door openings in general. This zone should extend 200mm both sides of the projected edges of the clear opening.

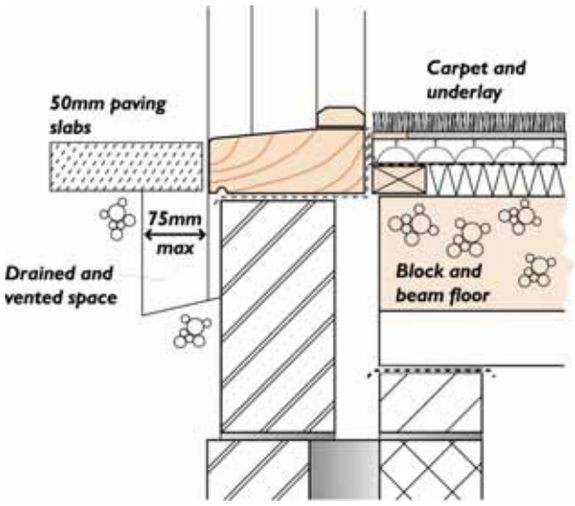
Table 5. Minimum widths of corridors and passageways for a range of doorway widths

Door clear opening width (mm)	Corridor / passageway width (mm)
750 or wider	900 (when approach is head-on)
750	1200 (when approach not head-on)
775	1050 (when approach not head-on)
800	900 (when approach not head-on)

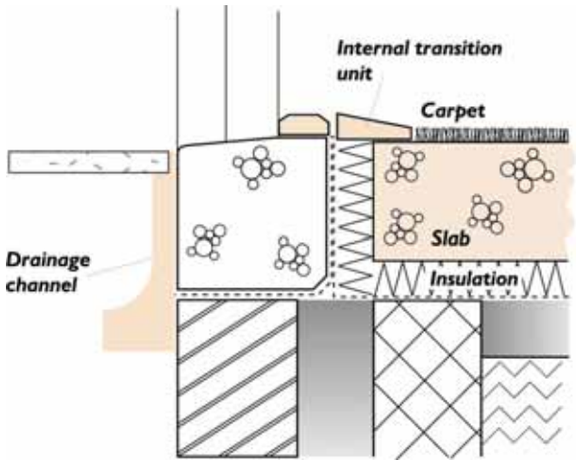
- On steeply sloping sites a change in level within the entrance storey may be unavoidable. A 900mm wide staircase complying with Part K with handrails on each side if there are three or more risers would suffice.
- Switches and sockets on all levels within the dwelling should be located within an accessible zone. This is to assist people whose reach is limited to use the dwelling more easily. This is illustrated in Figure 34. Location of switches and sockets.

Figure 32. Sills and threshold example

Timber sill and external concrete slab paving



Concrete sill and internal transition unit



- For buildings containing flats, the objective should be to make reasonable provision for disabled people to visit occupants who live on any storey. The most suitable means of access for disabled people from one storey to another is a suitably dimensioned and designed lift.
- If there is no passenger lift providing access between storeys, a stair should be designed to suit the needs of ambulant disabled people. In any event, a stair in a common area should be designed to be suitable for people with impaired sight.

Figure 33. Internal corridors and passages

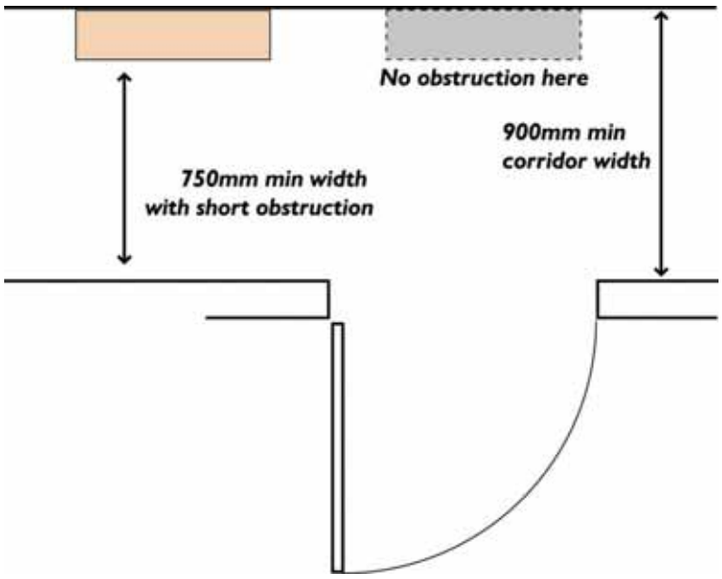
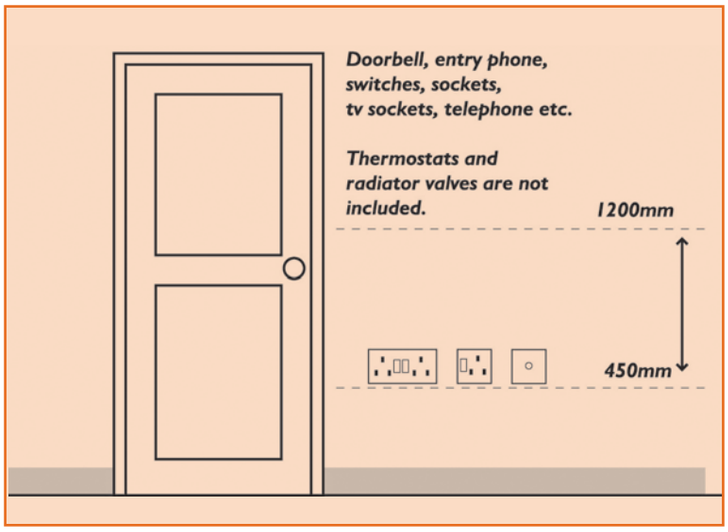


Figure 34. Location of switches and sockets



Additional information and more detail on dwellings and access can be found in Approved Document M.

35. WCs Within Dwellings BC

- A WC should be provided on the entrance storey of a dwelling. This should be located so that there should be no need to negotiate a stair to reach it from the habitable rooms in the storey. Where the entrance storey contains no habitable rooms, it is reasonable to provide a WC on either the entrance storey or the principal storey.
- The aim is to provide a WC within the entrance storey or principal storey of a dwelling. Where there is a bathroom on that storey, the WC may be located in that bathroom.
- The door to the WC should open outwards, should be positioned to enable wheelchair users to access the WC, and should have a clear opening width as described in Table 5 (door openings wider than the minimum stated in Table 5 allow easier manoeuvring and access to the WC for wheelchair users).
- The minimum width of the compartment is 900mm, but prescriptive layouts have not been imposed. Consideration should be given to the location of the wash basin, particularly in very small rooms.

Additional information on this issue can be found in Approved Document M.

Figure 35. Clear space for frontal access to WC

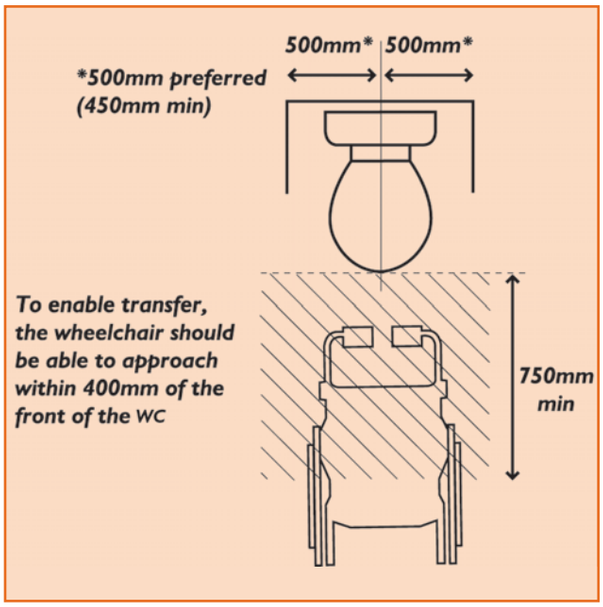
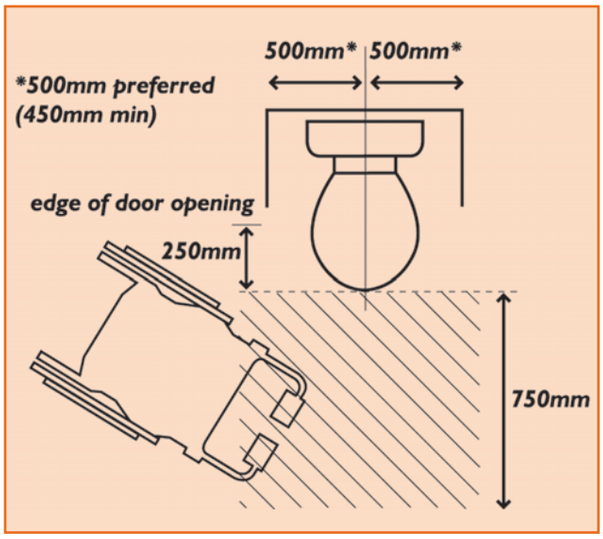


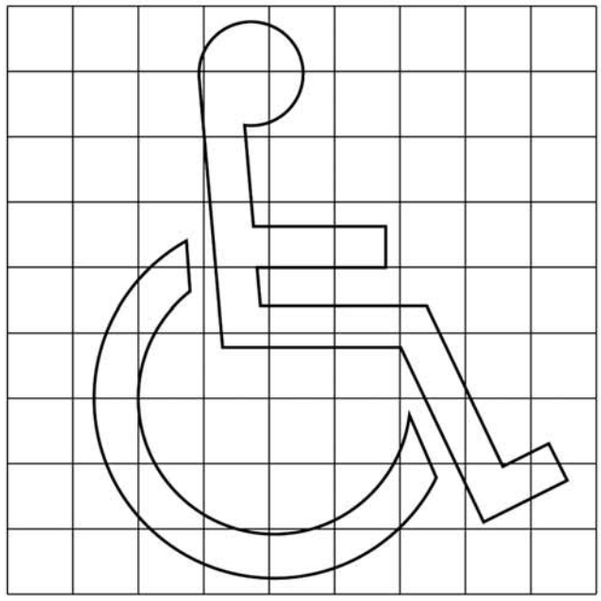
Figure 36. Clear space for oblique access to WC



ADDITIONAL INFORMATION

36. Signs and Symbols

Figure 37. The international symbol of access



Examples of its use:
- Designated disabled persons parking spaces
- Disabled persons toilets

It should be based upon the square tile as shown.

Signs

- Signs should be consistent, thorough and continuous along routes and should take account of the need for reassurance.
- Ensure legibility of signs and lettering by attention to size and style and by use of strong colours, good immediate background and non-distracting general background and by good lighting without a glare.
- Lettering should be within visual range and provide good contrast against the background.
- Raised letters can be helpful for visually impaired people. If raised lettering is to be used, the sign should be within reach at a reasonable level.
- Signs should be positioned consistently throughout a building.

Additional guidance on nationally recognised symbols can be found in BS 8501:2002 “Graphical symbols and signs: Public Information Symbols”.

37. Legislation and Bibliography

Legislation

Building Act 1984 (as amended)

Building Regulations 2000

Chronically Sick and Disabled Persons Act 1970

Disability Discrimination Act 1995

Disability Discrimination Act 2005

Planning and Compulsory Purchase Act 2004

Regulatory Reform (Fire Safety) Order 2005

Town and Country Planning Act 1990

Bibliography

Title	Publisher
Access to ATM's: UK Design Guidelines (2003	CAE
"Access for disabled people" - Design Guidance Note	Sport England
Access for disabled people to school buildings - Building Bulletin 91	DFEE
"Access and use of buildings" Building Regulations Approved Document M (2004 Edition)	ODPM
Design and access statements	CABE
"Design of buildings and their approaches to meet the needs of disabled people – code of practice" BS8300 (incorporating Amd 1)	BSi
Designing and managing against the risk of fire in schools - Building Bulletin 100	DFEE
"Fire safety" Building Regulations Approved Document B (2000 Edition)	ODPM
"Fire safety" Building Regulations Approved Document B Volumes 1 and 2 (2006 Edition)	DCLG
"Fire safety risk assessment: Means of escape for disabled people. Supplementary guide"	HM Government Publications
Fire safety risk assessment (11 Volumes re: various use types)	HM Government
Guidance on the use of Tactile Paving Surfaces (1998)	DETR
Inclusive school design - Building Bulletin 94	DFEE
The principles of inclusive design (they include you)	CABE

38. Useful contacts

cambridgeshire LABC

Cambridge City Council
01223 457118/457122
FAX 01223 457129
Email:
planning.buildingcontrol@cambridge.gov.uk
Web: www.cambridge.gov.uk

East Cambridgeshire District Council
01353 665555
FAX 01353 665240
Email: bcservices@eastcambs.gov.uk
Web: www.eastcambs.gov.uk

Fenland District Council
01354 654321
FAX 01354 606919
Email: buildingcontrol@fenland.gov.uk
Web: www.fenland.gov.uk

Huntingdonshire District Council
01480 388455
FAX 01480 388456
Email: buildingcontrol@huntsdc.gov.uk
Web: www.huntsdc.gov.uk

Peterborough City Council
01733 453422
FAX 01733 453505
Email:
building.control@peterborough.gov.uk
Web: www.peterborough.gov.uk

South Cambridgeshire District Council
08450 450500
FAX 01945 713152
Email: building.control@scambs.gov.uk
Web: www.scambs.gov.uk

Access Association
Tel: 01283 508721
www.access-association.org.uk

British Council of Disabled People
Tel: 01332 295551

Centre for Accessible Environments
Tel: 0207 357 8182
www.cae.org.uk

Commission for Architecture & the Built Environment
Tel: 020 7070 6700
www.cabe.org.uk

Disability Rights Commission
Tel: 08457 622633
www.drc-gb.org.uk

Disability Unit
Department for Work and Pensions
www.disability.gov.uk

National Federation of Shopmobility UK
Tel: 08456 442446
www.justmobility.co.uk

Royal Association of Disability and Rehabilitation (RADAR)
Tel: 020 7250 3222
www.radar.org.uk

Royal National Institute of the Blind
Tel: 0207 388 1266
www.rnib.org.uk

Royal National Institute of the Deaf
Tel: 08081 8080 123
www.rnid.org.uk

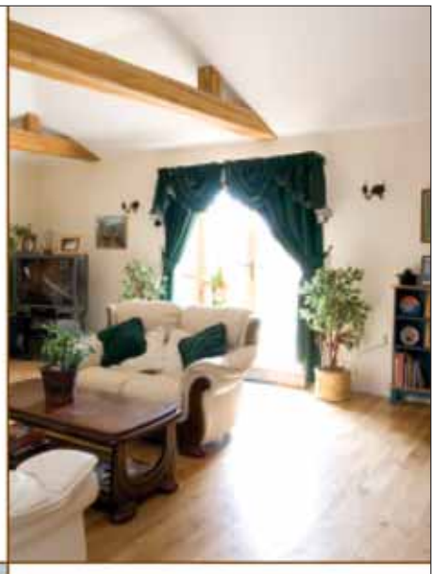
Cambridgeshire Fire and Rescue Service
Tel: 01480 444500
www.cambsfire.gov.uk

Advertisers' Index

You dream we build...

Our unique service encompasses providing you with good advice, producing workable designs, managing the project from start to finish and using our skills to complete buildings to the required standards and specifications.

Also, we provide you with one point of contact, which will be responsible for the smooth management of your project, leaving you to get on with your daily life.



What can we offer you?

Good advice, helping you to plan your building project to make the best and most effective use of your available budget.

We will produce a workable design, which achieves the desired results whilst avoiding the pitfalls.

Manage all of the issues involved to taking your project from idea to completion.

Our team of skilled tradesmen will turn your design into reality by utilising their years of experience, know-how and dedication.

Our aim is to provide a one-stop shop for clients who are engaged in one-off design and build projects.

To date we have completed work on a wide spectrum of contracts ranging from barn conversions to factory units and all stops in-between. If needed, we will assemble a bespoke team based upon the specific requirements of each client.

Call us to find out how we can help you build your dream 01449 775439

Email: enquiries@elliottandthomas.com Web: elliottandthomas.com

ELLIOTT & THOMAS LTD

LABC

POSITIVE ABOUT DISABLED PEOPLE

CAMBRIDGE CITY COUNCIL

East Cambridgeshire District Council

Fenland CAMBRIDGESHIRE Fenland District Council

Huntingdonshire

PETERBOROUGH CITY COUNCIL

South Cambridgeshire District Council