



CITY OF STOKE ON TRENT

Local Development Framework Supplementary Planning Document



Inclusive Design Access for All
(February 2008)
Ref: SOT/SPD1



Supplementary Planning Document

Inclusive Design Access For All

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Stoke-on-Trent City Council

Contents

Introduction and Background	5
Purpose and Role of the SPD	5
Planning Policy Context	6
Sustainability Appraisal	6
Inclusive Design	7
Disability Discrimination Act	8
Design and Access Statements	8
Consultation	9
Updates	9
Guidance – Space Requirements	10
Dwellings	12
Off-Street Parking	14
On-Street Parking	17
Accessible Setting Down Areas	17
Visitor Parking in Residential Areas	18
Accessible Bus / Taxi Stops	19
Accessible Approach Paths and Access Routes	20
Footbridges and Underpasses	23
Pedestrianised Areas	23
Pedestrian Advantage	23
Tactile Surfaces	24
Street Furniture, Barriers, Restrictions and Hazards	25
Cycle Parking	27
Automatic Telling Machines (ATMs)	29

Smoking Shelters	29
Signage and Wayfinding	30
Ramped Access	32
Stepped Access	34
Handrails to Steps and Ramps	35
Accessible Entrances	37
Glazing in Public Spaces	39
Shop Fronts	39
Access Lifts	40
Entry Control Systems	40
Lighting	41
Internal Facilities	41
Schools and Education Premises	42
Sports Developments	42
Buildings of Historical and Architectural Interest	43
Green Spaces and Play Areas	45
Contact Details	46
Acknowledgement	46
Sources of Reference	47
Appendices 1 to 4	48
Dimensional Data	53
Glossary	56

Introduction and Background

Stoke-on-Trent City Council is committed to a policy of equality, inclusion and accessibility in the design of buildings and spaces. We aspire to the creation of an inclusive environment, with facilities which can be used by anyone regardless of age, gender or disability.

The city council has adopted the social model of disability and we believe that people are not disabled by their impairments but by physical and environmental barriers, policies, practices and procedures which exclude disabled people and by the attitudes and prejudices of other people.

We aim to create a City that is “fair, open and inclusive.”

We recognise that people are individuals and that their needs are not identical. We will recognise people’s diversity at all times, trying to ensure that the built environment meet the needs of most people most of the time. Inclusive environments are not just a disability issue. Environments can disable many people including older people, young children, people with pushchairs or prams and people with temporary injury.

The Inclusive Design Access for All Guidance is provided to assist developers and providers of services to create an inclusive environment which adds strength to our community.

Purpose and Role of the Supplementary Planning Document

Stoke-on-Trent City Council is preparing a new Local Development Framework for the City. The Local Development Framework is a collection of planning policy documents that will shape the future of Stoke-on-Trent, by guiding the amount, location and form of new development. It will replace the City Plan 2001 and the Staffordshire and Stoke-on-Trent Structure Plan 1996-2011 in due course. More details are available on our website at www.stoke.gov.uk/ldf

As part of their Local Development Framework local councils can produce detailed guidance on certain topics or for certain areas. These documents are known as Supplementary Planning Documents (SPD’s) because they expand on or ‘supplement’ existing planning policies rather than setting out new policies.

The process that has to be followed in the preparation of SPD’s is similar to that for other documents in the Local Development Framework but it is a bit simpler. Although SPD’s must be subject to formal periods of public consultation and a sustainability appraisal they do not have to be submitted to the Government for their examination and consideration. This means that SPD’s can be produced more quickly.

The purpose of this SPD is to highlight the various requirements that exist in planning, accessibility and building regulation legislation in relation to accessible design with the aim of resolving any issues and conflicts early on in the development process. Pre-application discussion is encouraged between prospective developers

or providers of services and the city council to ensure that as far as possible any design and accessibility issues are highlighted and resolved before the formal planning application stage.

It is recognised that this can reduce the delay in the determination of planning applications and be significantly more cost-effective for the developer if accessible design is factored into the process as early as possible. The city council offers a 'one-stop shop' service for prospective applicants who wish to come in and discuss development proposals before they submit a planning application.

Planning Policy Context

Link to 'Saved' Policies

National planning policy advises (in Planning Policy Statement 12) that matters covered in Supplementary Planning Documents (SPD's) must relate to existing adopted planning policies and cannot introduce new policy. The adopted policies can either be in a development plan document in the new Local Development Framework or, in the case of Stoke-on-Trent (where these are not at a sufficiently advanced stage), an existing 'saved' policy.

Guidance in SPD's must also be consistent with national planning policy and the regional spatial strategy (in our case the West Midlands Regional Spatial Strategy).

The 'saved' policies that the SPD is linked to are listed in Appendix 1. These are policies in the Stoke-on-Trent City Local Plan 2001.

National and Planning Policy

The national planning policies that are relevant to the 'Inclusive Design Access for All' SPD are outlined in Appendix 2.

Sustainability Appraisal

All documents that are prepared as part of a Local Development Framework must be prepared with a view to contributing to the achievement of sustainable development. Central to sustainable development is the idea of ensuring a better quality of life for everyone, now and for future generations.

It is a requirement of planning legislation that sustainability appraisal must be undertaken throughout the preparation of a supplementary planning document. The purpose of sustainability appraisal is to assess the social, environmental and economic effects of the policies in a local development document.

Inclusive Design

The city council embraces the Disability Rights Commission's underlying principles of inclusive design:

- Fair and equal access for all
- Allocation of appropriate space
- Ensuring ease of use, comprehension and understanding
- Ensuring that services can be used with the minimum of stress, physical strength and effort
- Achieving safe, comfortable and healthy environments

Accessibility is about achieving inclusive environments. The government is committed to achieving "thriving, inclusive and sustainable communities in all regions" (ODPM Mission Statement 2003).

There are at least 10 million disabled people in the UK (at least 5.5% of the population). In Stoke-on-Trent, 9.6% of the local population declared themselves disabled in the 2001 census. Over the next 40 years, the number of people over 65 will rise at a greater rate than the population. As older people are more likely to develop disabilities, it is inevitable that the proportion of disabled people will increase significantly.

Inclusive design benefits the whole community, especially:

- Disabled people
- Older people
- Families with small children
- Carers, friends and relatives

Inclusive design allows everyone "to participate equally in mainstream activities independently with choice and dignity" (Planning and Access for Disabled People, A Good Practice Guide, ODPM 2003).

Further sources of reference for accessible design are appended to this document.

Disability Discrimination Act (DDA)

The Disability Discrimination Acts 1995 and 2005 place a duty on service providers to ensure equality of opportunity in employment, education and in the provision of goods, facilities and services for disabled people. The DDA is evolving and growing legislation and is being implemented in stages to give those who have duties under the Act time to take action. A service provider is anyone from the public, private or voluntary sector who provides a service to the general public or a section of the public.

The DDA definition of a disabled person is:

“A person who has a physical or mental impairment which has a substantial and long-term effect on his or her day-to-day activities”.

Design and Access Statements (DAS)

From 10th August 2006, Section 327A of the Town and County Planning Act requires a Design and Access Statement (DAS) to be submitted with all planning and Listed Building consent applications, except those involving:

- A material change of use, unless it also involves building and other works
- Engineering or mining applications
- Development within the curtilage of a single dwelling house where no part of that dwelling or curtilage is within a designated area such as a conservation area
- Advertisement control applications
- Tree Preservation Orders
- Storage of hazardous substances

Applications will not be accepted without a Design and Access Statement. Developments should be designed to integrate and adopt the principles of inclusive design to result in developments that:

- can be used safely by as many people as possible without undue separation or special treatment,
- offer the freedom to choose and the ability to participate equally in the developments' mainstream activities,
- value and embrace diversity and difference,
- are of high quality design,
- allocate appropriate space for people,
- achieve safe, comfortable and healthy environments,
- ensure ease of use, comprehension and understanding, and
- have signage that is legible and predictable.

The DAS is the mechanism by which good design and access are achieved. The Commission for Architecture and the Built Environment (CABE) has produced a guidance note on how to write, read and use statements – www.cabe.org.uk .

The Government Guidance Circular 01/2006 can be downloaded from – www.communities.gov.uk .

In general, a Design and Access Statement is a short report accompanying a planning application which allows applicants to:

- explain how they have interpreted local context and policy,
- demonstrate the robustness of their design process,
- show how they have arrived at their proposals, and
- explain what consideration they have given to access issues, including details of consultation, e.g. consultation with community groups, access groups, access professionals, and how the findings of this consultation have been taken into account or have affected the design proposals.

The city council strongly encourage dialogue with groups representing disabled people, older people etc. at the early stages of design, as they may help to produce good design.

Consultation

This document has been developed following extensive consultation with disabled people, developers and other stakeholders.

Updates

This document will be reviewed on a periodic basis as legislation and best practice changes. It will be reviewed after a period of no longer than 12 months from the date of adoption as a matter of practice.

Guidance - Space Requirements

These dimensions are taken from BS8300:2001, Inclusive Mobility (DFT) and Building Sight (RNIB). They are researched average spatial requirements and should only be used as guidance as the needs of individuals vary.

Please Note: there is a metric / imperial conversion table appended to this document

Space allowances for people travelling on an access route

Width

2 wheelchair users	1800mm
Wheelchair user and an ambulant person	1500mm
Blind person with cane	1200mm
Person on crutches	1200mm
Blind person with guide dog	1100mm
Blind person with human guide	1200mm
Electric scooter	800mm
Wheelchair (occupied)	800 - 900mm
Adult and child	1100mm
Adult and helper	1200mm
Basic adult width	500 - 600mm

Length

Pram and pusher	900mm
Wheelchair	1250mm
Attendant pushed wheelchair	1750mm
Electric scooter	1400mm (average)
Adult plus guide dog	1500mm
Double pushchair	1000mm

Space required to turn through 90 degrees (90% of sample)

Electric wheelchair	1600mm x 1625mm
Self-propelled wheelchair	1550mm x 1550mm
Wheelchair plus attendant (max)	1800mm x 2500mm
Electric scooter (max)	2500mm x 2500mm

Unobstructed height required above a pedestrian way

Minimum height required above pedestrian way	2100 - 2500mm
Overhead signage minimum clearance	2100mm
Overhead signage (cycleway)	2300mm
Trees overhanging footway cut back to	3000mm
Vehicle height barriers vertical clearance	2600mm

Wheelchair / scooter data

Average height of a wheelchair user	1250mm
Average height of a scooter user	1200mm - 1500mm
Eye height of wheelchair user	960mm - 1200mm
Eye height of scooter user	1080mm - 1315mm
Knee height	500 - 690mm
Seat height	460 - 490mm
Ankle height wheelchair user	175mm - 300mm
Average wheelchair turning circle	1500mm x 1500mm

Reach Ranges (See also Appendix 3)

Walking / travel distances

NB There is a great variation between individuals and these are only guideline distances

Wheelchair users	maximum 150m
Visually impaired people	maximum 150m
Stick / crutch user	maximum 50m
Mobility impaired without aids	maximum 100m

NOTE: On distances over 30m disabled people are apt to rest frequently and will need suitable seating.

Standing (London Travel Survey)

Less than 1 minute without discomfort	9%
1 – 5 minutes	24%
5 – 10 minutes	22%

1.0 Dwellings

1.1 Part M Building Regulations 2004 covers design for new dwellings. The guidance is intended to be a “visitability” standard rather than an accessibility standard.

1.2 The objective is to ensure that disabled people can:



- Approach the building from the plot boundary
- Gain access into the building from the point of alighting from a vehicle which may be within or outside the plot
- Approach the principal entrance. In exceptional circumstances, where there is steeply sloping plot access must be provided to an alternative entrance.
- Gain access into the dwelling-house and into entrance level flats

1.3 The approach should be as level as possible (ideally completely level, or with a maximum 1:20 gradient, 900mm minimum width, with a firm and even surface). If a stepped approach is unavoidable, the steps should be designed to be suitable for use by an ambulant disabled person.

1.4 A driveway may form part of the approach, in which case a level or ramped approach may be possible from the car parking space – especially on steeply sloping plots.

1.5 Loose laid materials, such as gravel or shingle are not acceptable for the approach. Mobility impaired people find this type of material impossible to traverse.

1.6 External doors into the dwelling must have a minimum clear opening width of 775mm.

1.7 In exceptional circumstances, where level access is not possible to the main entrance, consideration should be given to the provision of an alternative accessible entrance. The accessible entrance whether it be the main entrance or the alternative entrance should have an accessible threshold. Design guidance on accessible thresholds in new housing has been published by the Stationery Office (ISBN 0-11-702333-7).

1.8 Housing being built by organisations which are subsidised by the Housing Corporation must meet the Housing Corporation’s Scheme Development Standards (www.housingcorp.gov.uk).

1.9 The Joseph Rowntree Foundation’s Lifetimes Homes Standard is a set of 16 design features that aim to ensure that any new house or flat will meet the needs of most households. Part M Building Regulations requirements cover accessibility and the Lifetime Homes Standards add to this built-in flexibility that makes home easy to adapt as peoples’ lives change.

- 1.10 Lifetime Homes Standards go a little further than Building Regulations in their requirements for adaptability. The Rowntree Foundation has stated:” As these additions are minor, it seems sensible to design homes which achieve all of these requirements and are universal in their appeal and application”
Designing homes to these standards is beneficial to those people who live in them but also can give “private builders of new homes a marketing edge in relation to second-hand stock with which they compete”
- 1.11 The UK has an ageing population and adaptable, flexible housing has an increasing market of potential buyers. It makes sense to build to suit the market. Lifetime Homes are not accessible homes designed exclusively for disabled people. Rather they are flexible homes designed to meet the changing needs of families.
- 1.12 Government guidance in PPS1, PPS3 and PPS12 supports local authorities who undertake to “secure a more accessible environment for everyone”. Stoke-on-Trent City Council requires developers of housing schemes to consider Lifetimes Homes Standards in the design of the dwellings.
- 1.13 For more information about Lifetime Homes Standards, visit www.jrf.org.uk/housingandcare/lifetimehomes

2.0 Off-Street Car Parking

2.1 Parking should be made available for Blue Badge holders at every location where standard parking is provided. Parking is a key issue for people with mobility impairments. People who have a limited mobility range or a visual impairment may be excluded from using facilities if travel distances to main entrances from parking areas exceed their capability.



2.2 In off-street parking facilities, parking bays designated for use by disabled people should be located as close to the main points of entrance as possible – certainly at no greater distance than 50m.

2.3 The number of disabled person's parking bays required will depend on the overall number of spaces being provided and the use of the buildings within the development.

2.4 As a guide to provision required (source BS8300):

- Shopping, recreation and leisure facilities – 1 space for each disabled employee plus 6% of total capacity. Sports stadia may require greater numbers of disabled person's parking bays.
- Railway car parks – 1 space for each disabled employee plus 5% of total capacity.
- Religious buildings – at least 2 disabled person's parking bays
- Cemeteries and crematoria – at least 2 disabled person's parking bays
- Work places – 1 space for each disabled employee plus at least 1 space or 5% of total capacity (whichever is the greater). For workplaces where the number of disabled employees is not known, at least 1 space or 5% of the total capacity should be designated disabled person's parking – the spaces to serve both visitors and employees.

2.5 Availability of parking for disabled people should be clearly sign posted at the car park entrance(s).

2.6 The location of disabled person's parking should be made readily apparent by the use of signage. Bays should be marked with yellow lines with the yellow universal wheelchair symbol within the bay.



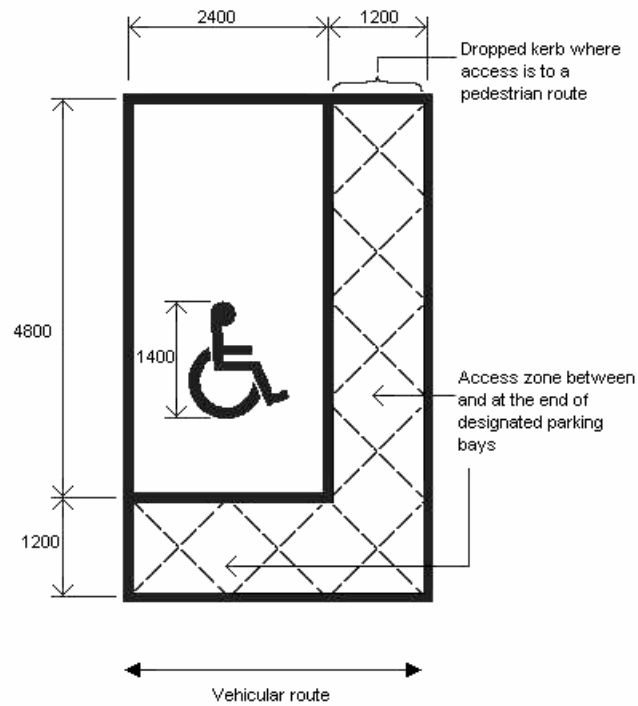
2.7 Each parking bay for disabled people should have a sign at drivers eye level at the head of the bay, reserving that bay for sole use by Blue Badge holders.

2.8 Where charges apply for parking, clear information signage should be provided showing details of time limits which may apply to Blue badge holders, tariffs applicable and details of how to pay.

2.9 Posts carrying signage should be located where they do not constitute a hazard to visually impaired people.

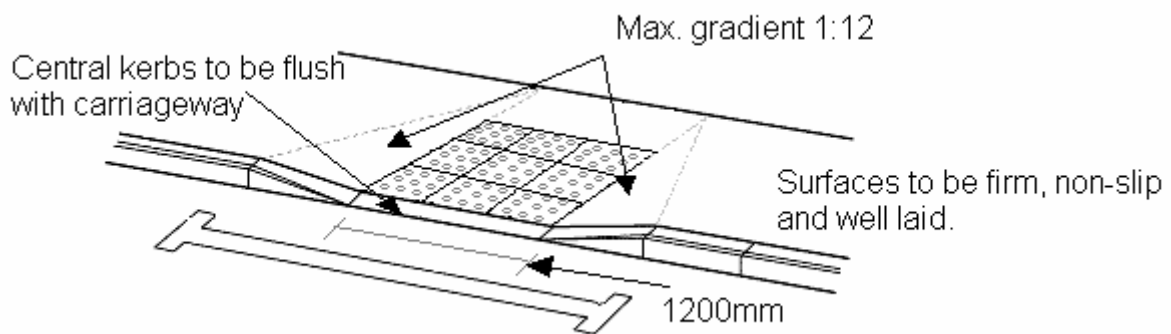
- 2.10 Where charges are applicable for Blue Badge holders, ticket machines must be adjacent to designated parking bays for disabled people, have controls between 750mm and 1200mm above the ground and a plinth which does not project in front of the face of the machine in a way that prevents its convenient use. A clear space of 1850mm x 2100mm to the front of the ticket machine allows a wheelchair to manoeuvre.
- 2.11 Disabled users of the designated parking bays may be drivers or passengers and space is required for disabled people to fully open the car doors, alight and move safely around the vehicle. The dimensions of a designated bay should be as **Diagram 1**.
- 2.12 The surface of designated parking should be level, firm, durable and slip resistant. Unsuitable materials are gravel, grass or other unstable materials.
- 2.13. Dropped kerbs should be provided where necessary to give access from the parking area to approach paths. See **Diagram 2** for guidance.
- 2.14 Barrier control systems should conform to BS 6571-4 but it should be noted that these systems are often difficult to use by people with reach or dexterity impairments. Alternative or management systems may need to be put in place. Entryphone systems used where the barrier is raised by security staff remote from the barrier are problematic for deaf and hard of hearing people and those without speech. Alternative or management systems may need to be considered to meet the needs of this user group.
- 2.15 Vehicle height barriers should provide a vertical clearance of 2.6m from the carriageway to allow the passage of high-top conversion vehicles.
- 2.16 Guidance on design of multi-storey car parks and garaging is available in BS8300:2001

Diagram 1
Parking bay designed for disabled people



Dimensions of parking bay are to centre lines of markings

Diagram 2
Dropped kerb at an uncontrolled crossing



3.0 On-Street Parking

- 3.1 On-street parking assistance will only be provided after the applicant has successfully completed the Highway Authority's application procedure. There is no automatic right to such parking provision, as each application is considered on its merits.



4.0 On-Site Accessible Setting Down Areas

- 4.1 Developments which would require this provision include educational, health buildings etc. A clearly signposted setting down point is required on firm, level ground as close as practicable to the main entrance or any alternative accessible entrance.
- 4.2 This setting down point is to be provided in addition to designated accessible parking near entrances.
- 4.3 The surface of the footway adjacent to a setting down point should be level with the carriageway at that point to allow transfer onto or off a wheelchair.
- 4.4 If the setting down point has a kerb along its length, appropriate dropped kerbs are required. See **Diagram 2** for guidance.
- 4.5 It is considered good practice to provide weather protection to a setting down point.



5.0 Visitor Parking in Residential Areas

- 5.1 New residential developments usually have sufficient parking for residents, but provision should be made for visitors, especially those who are disabled or those with small children.
- 5.2 Where there are fewer than 2 private spaces per dwelling (including spaces on communal parking areas) there should be some spaces where visitors are able to park without causing obstruction to residents or other road users, e.g. by localised widening of the carriageway.
- 5.3 Spaces in communal parking areas for visitor use should be marked permanently.
- 5.4 Visitor spaces should be no more than 100m from those dwellings with less than 2 private parking spaces.
- 5.5 One visitor space should be provided for every 5 dwellings or units of accommodation.
- 5.6 In communal car parks, at least one larger bay should be provided which is suitable for use by disabled people. See **Diagram 1**.
- 5.7 Where underground parking is proposed, or parking which is accessible by steps or stairs to building entrances, alternative lift or accessible ramped access should be provided to facilitate access for wheelchair or scooter users.



6.0 Accessible Bus / Taxi Stops

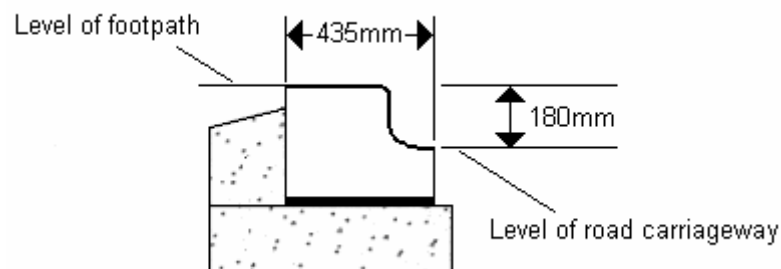
6.1 The Department for Transport (DfT) publication “Inclusive Mobility” is a guide to best practice on access to the pedestrian and transport infrastructure. It is available to download for free from the DfT website:
www.dft.gov.uk



6.2 Inclusive Mobility has detailed guidance and recommendations on the spacing and design of bus stops, the design of bus shelters, seating adjacent to bus stops and shelters, the design of timetable information and the design of bus stop flags.

6.3 Any bus stop design must also take into account the increasing prevalence of low floor buses. Raised kerbs at bus stops should be 180mm above the road surface. See **Diagram 3**

Diagram 3 – Cross-Section Through Raised Kerb Detail



6.4 Taxi ranks should be wheelchair accessible. Wheelchair accessible taxis will become more common as the Disability Discrimination Act is expanded.

6.5 Where possible, dedicated taxi pick-up and drop-off points should be provided adjacent to all major attractors such as retail areas and transport interchanges. Clear signage should indicate where they are located on the development.

6.6 The suggested total width of the footway adjacent to a taxi rank is 4040mm. This width will allow for the deployment of a wheelchair ramp and manoeuvring space for the wheelchair user.

6.7 Taxi pick up points should have seating adjacent for people who are unable to stand for long periods of time and ideally should have suitable weather protection.

6.8 Taxi ranks must be appointed using the appropriate legislation.

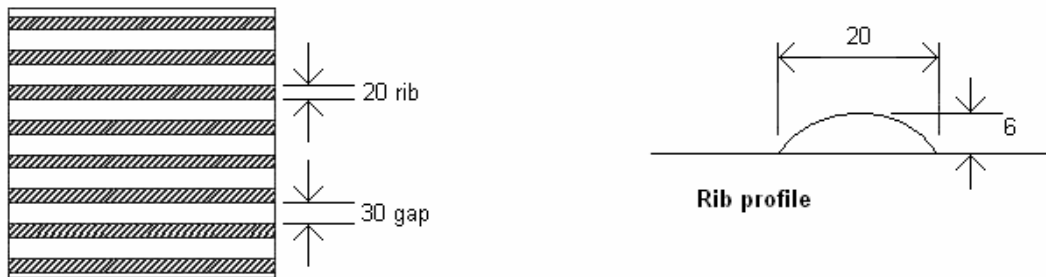
7.0 Accessible Approach Paths / Access Routes

- 7.1 Access routes should be direct and safe with appropriate signage to aid wayfinding.
- 7.2 Wherever possible, approach paths should be level from the boundary of the site. A level approach will have a gradient of no more than 1:60. Where a change in level is unavoidable, gradients must be as gentle as possible.
- 7.3 Any approach routes with a gradient steeper than 1:20 should be treated as a ramped approach and should have appropriate level landings to provide rest areas for people with mobility problems. Landings should be introduced for each 500mm rise of the access route.
- 7.4 Where possible, crossfall gradients should not exceed 1:40. This is because an excessive crossfall can cause a visually impaired person to deviate from the correct route. Crossfall gradients can also present difficulties for wheelchair users but approach paths need to drain effectively to prevent puddles.
- 7.5 Approach routes should have a minimum surface width of at least 1500mm with passing places (1800mm x 2100mm). Passing spaces should be distanced at no more than 50m apart. A surface width of 1800mm to 2000mm is preferred to increase passing widths.
- 7.6 An access route should have a surface which is firm, durable and slip resistant. Cobbles, gravel, bare earth and sand are not appropriate materials to use on the approach. BS 5395-1 gives guidance on slip resistance of floor surfaces. Where there are different materials along an access route, the materials should have similar frictional qualities to reduce the potential for tripping or stumbling. Safe dry access routes for development at risk from flooding should be considered where applicable. Further advice on flood warning and evacuation plans can be found within Chapter 6 of 'Development and Flood Risk: A Practice Guide Companion to – PPS25 'Living Draft'. The document can be downloaded from – www.communities.gov.uk.
- 7.7 Joints between paving units should be filled flush wherever possible.
- 7.8 Approach paths should be well and evenly lit with no pools of light and shadow.
- 7.9 Drainage gratings should be positioned beyond the boundaries of the access route whenever possible to reduce the potential hazard. Gratings or slot type drainage should be avoided in pedestrian areas as they can trap canes or small wheels.



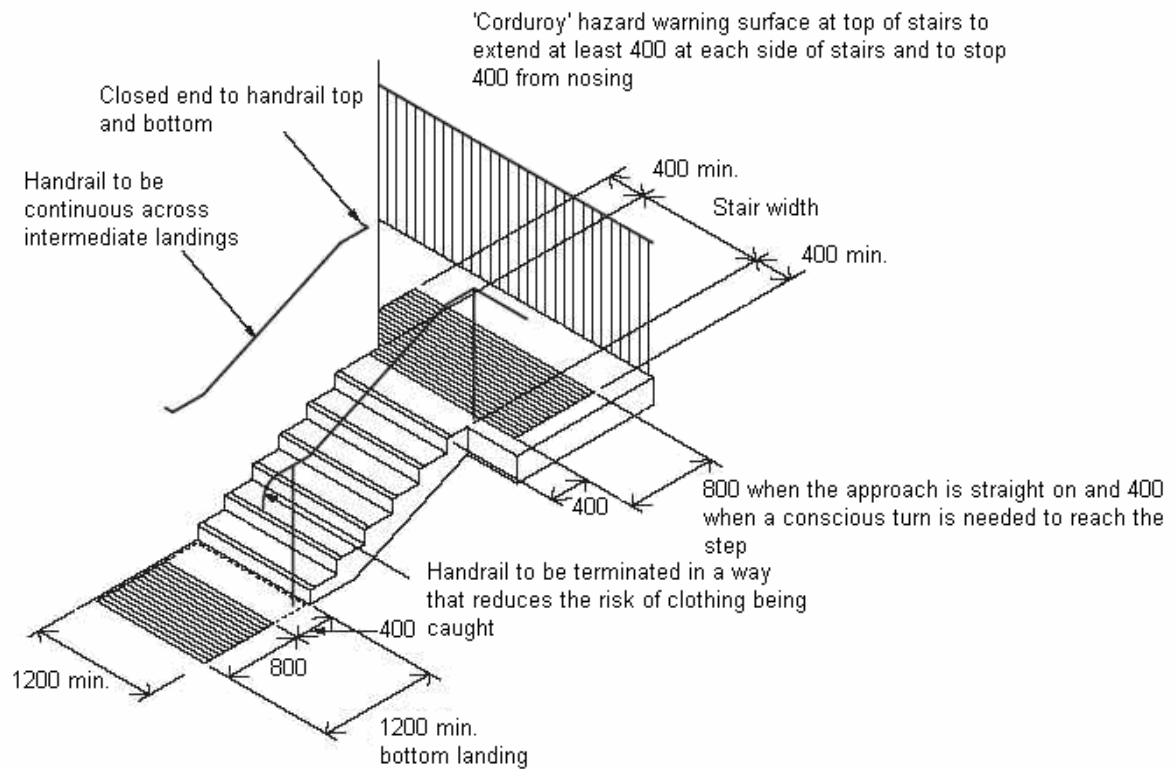
- 7.10 Care should be taken over the choice of planting adjacent to access route. The route should be free of overhead obstructions to a height of at least 2.1m, preferably 3m. Planting which may encroach on the path should be avoided.
- 7.11 Street furniture e.g. seating, bollards, waste bins, signposts and public art should be located at or beyond the boundaries of the access route. Access routes should be protected by guarding where doors and windows project more than 100mm into an access route. The absolute minimum width of access routes at obstructions is 900mm.
- 7.12 Pedestrian and vehicle routes should be segregated, preferably by a visually contrasting kerb 100mm high. Uncontrolled pedestrian crossing points should be identified by buff blister paving. Controlled crossings should be identified by red blister paving. See **Diagram 4**.
- 7.13 The gap between ram raider bollards should be no less than 1m wide. Bollards should be easily identified by the use of visual contrast and should be no lower than 1m high. Ideally bollards should be lit by night.

Diagram 4
Stepped access – key dimensions and use of hazard warning surface



'Corduroy' hazard warning surface (with 8 ribs)

Note: Full details of tactile paving are in "Guidance on the use of Tactile Paving Surfaces"



8.0 Footbridges and underpasses

- 8.1 In heavy traffic areas, crossing a road on the surface is often not the safest option and consideration must be made to the provision of footbridges and underpasses.
- 8.2 Footbridges and underpasses must be carefully designed to minimise the difficulties that many users such as frail elderly or visually impaired people have e.g. confusing routes, steep gradients and perceived risks to personal safety.
- 8.3 Design standards are available in the DETR document BD29/87 Design Criteria for Footbridges and TD 36/93 Subways for Pedestrians and Pedal Cyclists

9.0 Pedestrianised Areas

- 9.1 Pedestrianised areas, for example in areas of major shopping activity, can improve the safety and comfort of pedestrian users but consideration should be given to the needs of all users.
- 9.2 Users with mobility impairment may experience difficulties as the travel distances to their destinations may exceed their mobility ranges. Traders or residents may have need of vehicular access for deliveries.
- 9.3 The Institute of Highways and Transportation's Guidelines on Pedestrianisation and the DETR Local Transport Note: 1/87 Getting the Right Balance – Guidance on Vehicle Resolution in Pedestrian Zones give useful information and advice on access within pedestrianised areas.
- 9.4 Visually impaired people may experience problems with orientation in large open areas. It is considered good practice to provide directional guidance paving to assist blind and partially sighted people. RNIB / JMU can help with design.

10.0 Pedestrian Advantage

- 10.1 In some areas, full pedestrianisation is not a viable option. In this case, consideration should be given to the implementation of a pedestrian advantage scheme which can assist pedestrians and may contribute to road safety.
- 10.2 Information and guidance on such schemes can be found in:
 - Transport in the Urban Environment urban safety guidelines
 - Institute of Highway and Transportation urban safety guidelines
 - DETR Design Bulletin 32 – residential Roads and Footpaths – Layout Considerations 2nd Edition

11.0 Tactile Surfaces

- 11.1 Tactile paving helps visually impaired people navigate the external environment safely and confidently.
- 11.2 Full guidance on tactile paving is available in the DfT/Scottish Office document “Guidance on the use of tactile paving surfaces” and guidance on where it is suitable or necessary to use tactile surfaces is also available in Part M Building Regulations (2004)
- 11.3 Construction standards for tactile surfaces in concrete, clay and stone are outlined in BS 7997.
- 11.4 Hazard warning paving or corduroy paving has a pattern of half rod shaped bars and gives warning of an imminent hazard e.g. change in level such as steps, and which advises a visually impaired person to proceed with caution. The paving should contrast visually with its background but should not be red. Hazard warning paving is not usually used at the top and bottom of ramped accesses. It should be remembered that pedestrians as well as cars need time to react and stop.
- 11.5 Directional guidance paving has round ended bars and can be used to guide visually impaired pedestrians through large open spaces. Bars should be laid in the direction of travel. The paving should contrast visually with its background but should not be red.
- 11.6 Modified blister paving has a pattern of small, regular flat topped domes to alert pedestrians to the presence of a safe crossing point and advise them that there is no kerb at the crossing point. Buff blister paving denotes an uncontrolled crossing and red paving denotes a controlled crossing point such as a pelican or puffin cross
- 11.7 Cycleway paving is a bar pattern, which is used to segregate pedestrians and cyclists. The paving is laid transverse to denote pedestrian use and longitudinal to denote a cycle path.



12.0 Street Furniture, Barriers, Restrictions and Hazards

12.1 Street furniture including lighting columns, signposts, seats and litter bins should be sited on or beyond the boundaries of an access route.

12.2 Where free-standing columns and posts have to be located within the access route for practical reasons, there must be visual contrast between the post or column and the background against which they are seen to reduce the hazard.



12.3 Free-standing columns which support an entrance canopy should not present a hazard for visually impaired people and must, wherever possible, be sited away from the width of the main access route. Where this is not possible, good use must be made of visual contrast to aid identification of the potential hazard. On the other hand, entrance canopies can be extremely useful in aiding the identification of entrance points to buildings.

12.4 Benches and seats should be offset from the main access route and should be of good visual contrast to their background. Seats should be at 480mm height. Where it is possible to offer a choice of seating to service users, it is good practice to provide seats with and without arms, so that seating is available to the widest range of users. Seats should be of a material which does not retain heat or cold.

12.5 Litterbins attached to posts should be positioned facing the direction of travel. Free-standing bins should be continuous to ground level. Bins mounted on pedestals which overhang their support may remain undetected by a white cane user and could cause injury at hip level. Bins should contrast visually with the background against which they are seen and should not have sharp edges or corners which may injure users.



12.6 Vegetation can enhance a development but care must be taken in the choice of planting. Branches and growth should not overhang approach routes and present a hazard. Leaves, seeds, cones and nuts falling onto an access route, may pose a potential hazard to visually impaired people, people who use mobility aids and pedestrians in general, as the approach path may become slippery. Some shrubs such as berberis are particularly problematic as their thorns can injure pedestrians if this is planted adjacent to a footpath. Some species of trees have shallow, wide-spreading roots which can damage the footway causing an uneven surface underfoot. Specialist advice should be sought on the selection of suitable species. There is also on-going research as to the usefulness of planting in wayfinding. For example, users may recognise the particular outline of a tree as being at a certain proximity from the entrance to a building or may recognise the scent of a planting area adjacent to an exit path. Landscaping schemes that involve rivers or watercourses should ensure that planting occurs in dispersed clumps to allow access for maintenance between trees and shrubs.

12.7 Large open spaces are confusing for, in particular, visually impaired people and people with learning disabilities. Care should be taken in the design of wayfinding systems. It is possible to use a combination of signage, tactile and visual information to identify routes which are aesthetically pleasing but which help users to make sense of their environment.

12.8 Free standing signs which are supported by a low leg can pose a hazard for guide dogs users. The dog is not trained to recognise hazards over its head height and may walk underneath it, causing its user to walk into the sign.



12.9 Where there are sharp drops in level adjacent to a pedestrian access route, guarding or fencing at 1100mm –1200mm height should be provided. Guard rails should be designed so that guide dogs and children cannot get under the rails. BS 7818 gives more guidance.



12.10 Outward opening doors and windows which open out onto an access route should be avoided. Where this is not possible windows should be fitted with restrictors which only allow windows to open 100mm. Where doors project more than 100mm into a walkway, guarding should be provided which includes a barrier at ground level which can be detected by a visually impaired person's cane.

12.11 Utility service apparatus should be sited away from main access routes and away from kerbs.

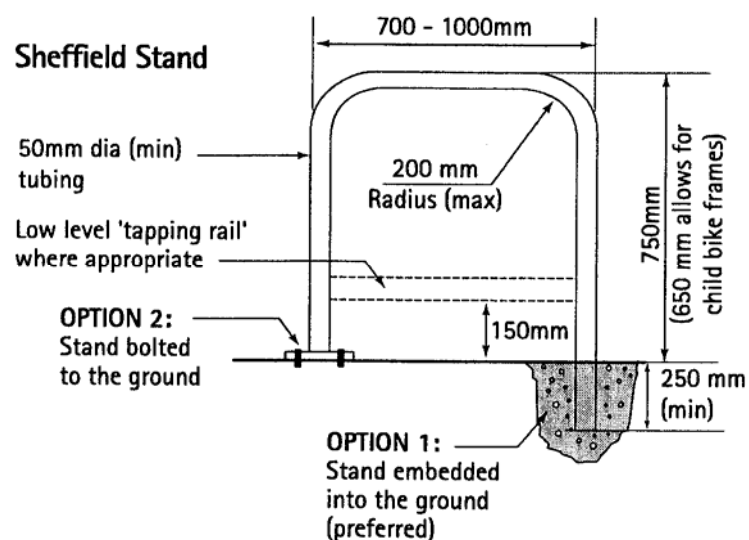
13.0 Cycle Parking

13.1 Cycle parking should always be sited in an area where it can be clearly seen, ideally close to, and visible from the main entrance to a building. If there are multiple entrances, or separate entrances for staff and public, then smaller numbers of facilities should be provided at each entrance rather than a single large one. Surveillance by security cameras, if available, and floodlighting for sites likely to be used at night, is also desirable.



- 13.2 For short-term use, Sheffield stands are the preferred choice as they provide support for the bicycle and a variety of locking points (**Diagram 5**). The spacing and layout distances are shown in **Diagram 6**.
- 13.3 The parking area should be level or if not, stands should be at right angles to the slope to prevent bicycles from rolling away.
- 13.4 Variations incorporating individual designs may be acceptable, especially in public spaces, as long as the basic functions of support and locking points remains and additions are not likely to cause a hazard to pedestrians, particularly those with visual impairment.
- 13.5 Other types of cycle stand, some of which secure wheels to the ground and may also incorporate coin-operated or charging features, are also available. These will be acceptable if they provide equal or greater security to the Sheffield stands.

Diagram 5



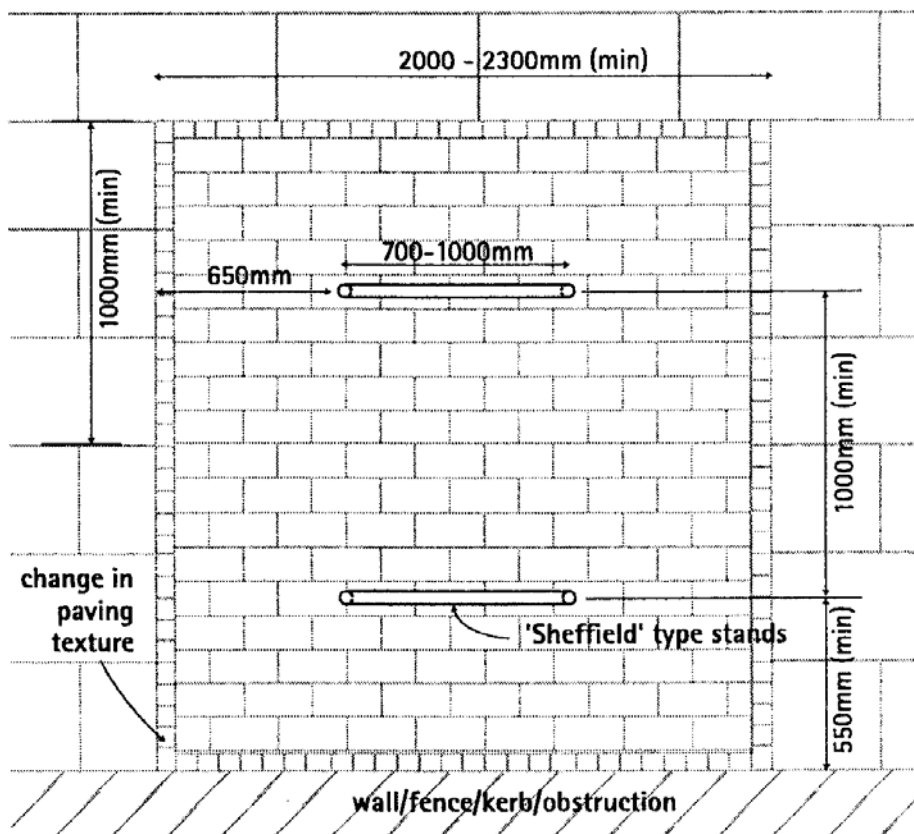
13.6 Where cycle stands are located in the footway, they need to be carefully sited to be out of main foot traffic routes but still visible and easily accessible, including close to dropped kerbs from the carriageway. An allowance of 1 square metre per cycle provides a guide for calculation. A change in pavement surface colour or texture to highlight the cycle stand area gives emphasis both for users and visually impaired pedestrians (see Diagram 6).

13.7 For longer-term use, shelter is essential, and some form of cycle locker or secured compound is desirable, to provide better weather protection and discourage theft. A variety of shelters are available and these have the advantage of providing a designated area where other pedestrians are less likely to knock into parked cycles.



Diagram 6

Cycle parking stand 'footprint' (plan view)



14.0 Automatic Telling Machines (ATMS)

14.1 RNIB has published a design guide to ATMs "Access Prohibited" J Gill ISBN 1 86048 014 4 which is an excellent reference source.

14.2 Wherever possible, ATMs should have weather protection (some disabled people may take longer to use the service because of dexterity problems, for example) and should be located in such a way that direct sun does not cause glare on the screen.

14.3 BS 8300 gives details on reach ranges and heights but the maximum height of any interactive element of the terminal should be 1200mm and the minimum height 700mm.



15.0 Smoking shelters

15.1 Where planning permission is required smoking shelters should be designed to ensure level access, include provision for wheelchair standing areas and incorporate a visual contrast to aid visually impaired people.



16.0 Signage and Wayfinding

16.1 Good signage is of paramount importance. Signs can inform, direct and reassure service users.

Signage is particularly important for:

- People who cannot communicate verbally, e.g. those who are deaf and without speech and so are unable to ask for directions
- People who may not be able to communicate effectively through speech but who may be able to read English with less difficulty
- People with learning difficulties
- People who are partially sighted
- People whose first language is not English



16.2 There are four sign groups:

- Direction signs
- Information signs
- Identification or location signs
- Safety, fire safety and mandatory signs

16.3 Part M Building Regulations requires signs to be located in certain external locations:

- Route to principal entrance(s) from site boundary
- Identifying setting down points
- To identify location of ramped alternative access routes where these are not readily apparent
- To identify location of stepped alternative access routes for those people who are unable to use ramped access routes
- To identify accessible entrances

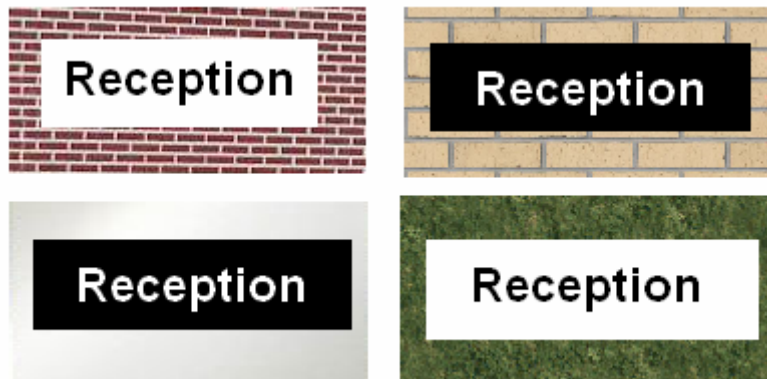
16.4 According to the Sign Design Society there are four basic principles in sign design:

- Signs should be used only when necessary
- Sign location should be part of the process of planning the building and the environment
- Messages should be short, simple and easily understood
- Signs should be consistent, using prescribed typefaces, colours and contrast.

16.5 The RNIB recommend the following schedule of colour contrast:

Background	Signboard	Legend
Red brick / dark stone	White	Black, dark green, dark blue
Light brick / yellow stone	Black / dark	White / yellow
Whitewashed wall	Black / dark	White / yellow
Green vegetation	White	Black, dark green, dark blue

Signage examples as per RNIB Schedule of Colour Contrast:



16.6 RNIB / JMU publication “Sign Design Guide – a guide to inclusive signage” gives full guidance on design of the signage scheme, location and heights of signs, language, wording and punctuation, typefaces, sizes of letters, symbols, embossed characters, reading distance and letter size, layout, colour and contrast, illumination and glare. Guidance is also available in BS8300: 2001.

16.7 It is worth noting that signage falls under the Disability Discrimination Act 1995 and so it is in the best interests of service providers and developers to ensure that signage systems follow best practice guidelines.



17.0 Ramped Access

17.1 Level access into a building is always the preferred option. Where site constraints necessitate an approach of 1:20 or more, the access should be treated as a ramp.



17.2 Wherever ramped access is provided, a stepped alternative should always be provided. Many ambulant disabled people struggle to use ramps and for them, stepped access is an easier to use option. A stepped alternative is a requirement of Part M Building Regulations where the total rise is more than 300mm.

17.3 The ramped access should be readily apparent or its location should be indicated by appropriate signage.

17.4 Limits for ramp gradients are:

Going of Flight	Maximum Gradient	Maximum Rise
10m	1:20	500mm
5m	1:15	333mm
2m	1:12	166mm

17.5 No ramp should have a length in excess of 10m. No ramp should have a rise of more than 500mm. Where the total rise is more than 2m, an alternative means of access, e.g. platform lift should be provided for wheelchair users.

17.6 The ramp width should be 1500mm minimum.

17.7 The ramp surface should be slip-resistant and should contrast visually with the landings. The surface of ramps and their landings should have similar frictional characteristics to reduce the potential for stumbling. BS 5395-1 contains guidance on the slip resistance of floor surfaces.

17.8 Landings at the foot and head of the ramp should be 1200mm long clear of any obstructions. Intermediate landings should be at least 1500mm long clear of any obstructions. Landings allow people to rest to regain strength or breath, or to ease pain.

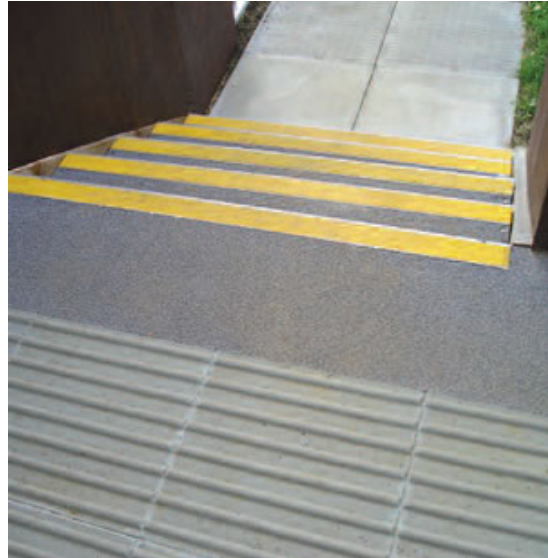
17.9 Where it is not possible for a wheelchair user to see from one end of the ramp to the other, intermediate passing places should be provided 1800mm long by 1800mm wide.

17.10 Landings should be level - maximum gradient of 1:60 with a maximum crossfall of 1:40.

- 17.11 Appropriate handrails should be provided to both sides of the ramp. See Section 18 of this guidance for more information on handrail design.
- 17.12 Any open side of the ramp or landing should have a 100mm high kerb which contrasts visually with the ramp or landing.
- 17.13 The area of the ramp should be well lit – at least 100 lux.
- 17.14 Portable or temporary ramps should not be used as a design solution for new buildings.

18.0 Stepped Access

- 18.1 Steps require a level, unobstructed landing of no less than 1200mm at the top and bottom of each flight.
- 18.2 Corduroy hazard warning surface must be provided to the top and bottom of flights to alert visually impaired people to the imminent change in level. See **Diagram 4** for more details of where the surface should be provided in relation to the steps.
- 18.3 Flight width should be a minimum 1200mm wide between enclosing walls, strings or upstands.
- 18.4 Single steps on access routes are unacceptable under Part M Building Regulations 2004
- 18.5 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.
- 18.6 All nosings should be made apparent by the use of permanently contrasting bands 55mm wide on the treads and on the risers. The projection of a tread nosing should be avoided but if it is unavoidable it should be no more than 25mm.
- 18.7 The rise and the going should be uniform 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.
- 18.8 The surface of the steps should be non-slip.
- 18.9 Open risers are not acceptable. They pose a considerable hazard for visually impaired people and ambulant disabled people and some people with learning disabilities find them confusing and frightening. Curved or spiral flights can also cause considerable difficulties for some disabled people.
- 18.10 A continuous handrail should be provided to both sides of the flight. See Section 18 in this guidance document for more handrail design information. Where flight width exceeds 1800mm, a central handrail should be provided to divide the flight into channels at least 1000mm wide.
- 18.11 In school buildings, the preferred rise is 150mm and a going of 280mm.
- 18.12 The area of the steps should be well lit – at least 100 lux.



19.0 Handrails to Steps and Ramps

- 19.1 Handrails provide support and reassurance for people who are negotiating a change in level.
- 19.2 Handrails must always be provided to both sides of a ramp, steps or stairs. An ambulant disabled person may have a weakness on one side and this allows them to support themselves whilst negotiating the change in level.
- 19.3 Second lower handrails can be helpful to people of reduced stature and children and should always be provided in ramps, steps and stairs to educational establishments.
- 19.4 Handrails must be positioned at 900mm to 1000mm above the pitch line of the flight of steps or pitch line of the surface of the ramp. Height at landing level is 900mm to 1100mm.
- 19.5 The rails should be continuous across the flights and landings of ramps and steps.
- 19.6 The rail must continue at least 300mm horizontally beyond the top and bottom of the ramp, or the top and bottom nosing of the flight. It must not project into any travel routes and should terminate in a manner which does not allow the clothing of passers-by to be caught.
- 19.7 Acceptable profile for handrails is round or oval. These profiles allow rails to be gripped with ease. Circular rails must have a diameter of between 40mm and 45mm and oval rails must have a width of 50mm with a radius of 15mm. See **Diagram 7** for more detail of handrail design. Brackets and supports to the rails must not impede grip.
- 19.8 The rails must contrast visually to the background against which they are seen and must not be cold to the touch. Acceptable finishes include wood and powder-coated or nylon-coated metal. Bare metal rails should not be used in external locations. Bare metal rails should not be used as they are often used for continuous support for longer than average periods of time by disabled people. People who may have certain circulatory problems e.g. Raynaud's Phenomena may experience great pain from prolonged exposure to cold surfaces.

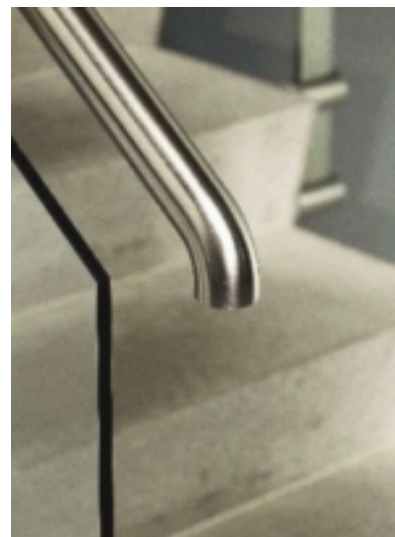
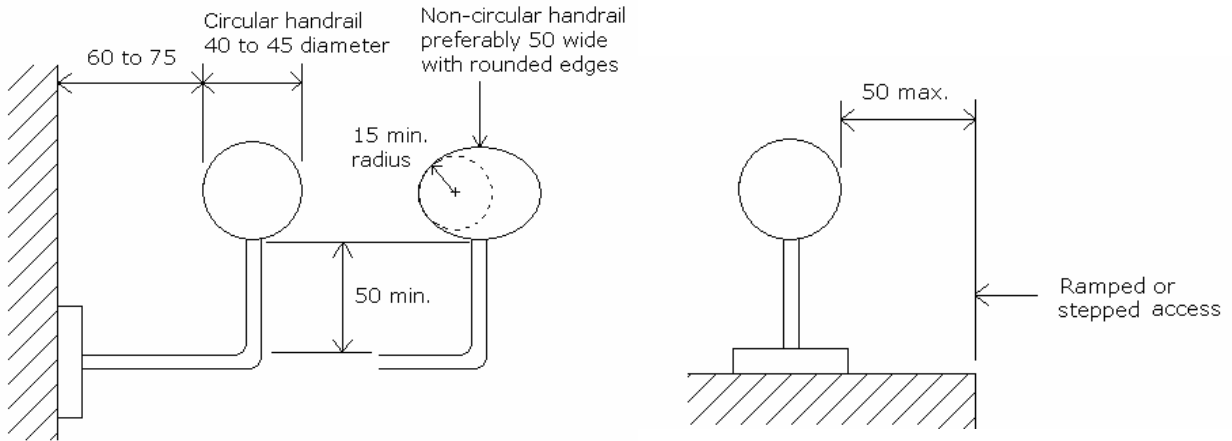


Diagram 7 Handrail design



20.0 Accessible Entrances for public buildings

20.1 In new buildings, the principal entrance and main staff entrances should be fully accessible. Where site restrictions e.g. a steeply sloping site, make it impossible for the principal entrance to be fully accessible, an accessible alternative entrance should be provided and signed as such. Accessible alternative access should never be signed as “Disabled Entrance” as this may be construed as being discriminatory.

20.2 Whenever an entrance to an existing building is being altered, developers must take the opportunity to improve the accessibility of the entrance.

20.3 Design principles to be taken into account to create an accessible entrance include:

- Ensure that entrances are prominent and easily distinguished from the façade of the building
- Ensure that the threshold design allows easy access for wheelchair users and does not present a tripping hazard to other users
- Ensure that the principal entrance door is easy to operate
- Ensure that the clear opening width of the door allows easy access for all users

20.4 A well-designed entrance:

- Will be easily identified from other elements of the building by signage, use of visual contrast or lighting.
- Will have a level area to the front of the doors
- Will have a level threshold
- Will have accessible door entry systems taking into account the needs of Deaf or hard of hearing people and people with speech impairments.
- Will have weather protection where doors are manually operated
- Will have external and internal floor surfaces which do not impede the progress of wheelchairs and which do not present a tripping hazard to mobility aid users
- Will have power operated doors where possible. Automatic sliding doors are the most satisfactory solution for the majority of users. Manual doors should have an opening force measured from the leading edge of the door of not more than 30N when the door is in the closed position to 30° open and not more than 22.5N from 30° to 60° of the opening cycle. Revolving doors, even the larger doors are not accessible for many disabled people and may pose a hazard to e.g. people with assistance dogs, people with mobility problems and parents with pushchairs.

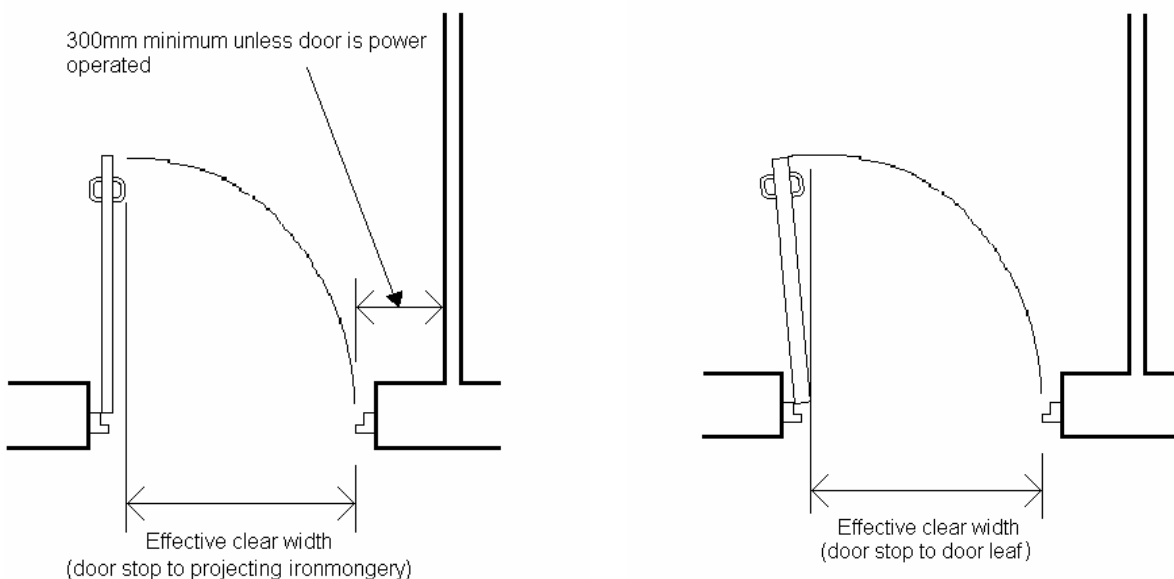


- Will have a clear opening width in accordance with **Table 1**. See **Diagram 8** for definition of clear opening width.
- Will have glazed doors with manifestation at two levels – 850-1000mm above the floor and at 1400-1600mm above the floor; or,
- Will have vision panels which give a zone of visibility between 500mm and 1500mm above the floor level, if necessary interrupted at between 800mm and 1150mm above the floor by an intermediate horizontal rail
- Will have door furniture which is operable by a closed fist, has good visual contrast to the door and which is not cold to the touch.

Table 1
Minimum effective clear widths of doors

Direction and width of approach	New buildings (mm)	Existing buildings (mm)
External doors to buildings used by the general public	1000	775
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

Diagram 8
Effective clear opening widths of doors



21.0 Glazing in Public Spaces

- 21.1 Glazed doors and screens can be a hazard to visually impaired people, whether the glass is plain or patterned. All glazing should conform to the requirements of Approved Document N Building Regulations.
- 21.2 Manifestation should be provided at two levels – 850 - 1000mm above floor level and 1400 - 1600mm above floor level. Manifestation should take the form of a logo or permanent sign at least 150mm high, or a decorative feature at least 50mm high.
- 21.3 Manifestation should be opaque and should contrast visually with the background seen through the glass from inside and outside.
- 21.4 Where glazed doors form part of a glazed screen, the location of the doors should be made apparent by use of a high-contrast strip.
- 21.5 The edges of glass doors which are held open should be protected by guarding to prevent the leading edge constituting a hazard.
- 21.6 Glare from windows, glazed screens and glass doors can be visually distracting and can adversely affect a number of eye conditions, e.g. people with cataracts, causing discomfort and disorientation.



22.0 Shop-Fronts

- 22.1 Easy access to shops and businesses benefits both customers and the business itself.
- 22.2 New premises will be expected to fully comply with the requirements of Part M Building Regulations in terms of approach, and doors and entrances (See Sections 13-17)
- 22.3 Replacement and refurbished shop fronts in existing buildings should remove or later physical barriers to access.
- 22.4 Shop signs and canopies should have a minimum overhead clearance of 2500mm above ground level. See Section 15 for guidance on design of signage.

23.0 Access Lifts

23.1 Lifts may be required where there are changes in level which cannot be solved by the provision of a ramp.

23.2 Lifting devices should be selected taking into account relevant legislation including:

- Lift Regulations 1997 SI 1997 / 831
- The Lifting Operations and Lifting Equipment Regulations 1998 SI 1998 /2307
- The Provision and Use of Work Equipment Regulations 1998 SI 1998/2306
- The Management of Health and Safety at Work Regulations 1999 SI 1999/3242
- For lifting platforms and wheelchair platforms – Supply of Machinery (Safety) Regulations 1992 SI 1992/3073 (or relevant British Standards , compliance with EN81 standards or by product notification by a Notified Body), BS 8300:2001 and Part M Building Regulations
- For enclosed passenger lifts refer to BS EN:81-70:2003, BS 8300:2001 and Part M Building Regulations.



24.0 Entry Control Systems

24.1 Door entry systems should be positioned on the latch side of the entrance door, within 200mm of the door frame at a height of between 750mm and 1000mm from the finished floor level and should contrast visually to the background against which they are seen.



24.2 Deaf, hard of hearing people and those without speech have real difficulties using entry phone systems. BS 8300:2001 advises that the system should have a LED display to indicate when the door release has been activated or that the call has been registered.

24.3 System should also have an audible indicator e.g. buzzer to indicate to visually impaired people that the door release has been activated or that the call has been registered.

24.4 Simple push button controls e.g. entry push pads, should be located at no higher than 1200mm

24.5 Controls which require more precise hand movement should be located at between 750mm and 1000mm above ground level.

24.6 Instructions for use of entry control systems should be simple with tactile or Braille characters and should be of good visual contrast to the background against which they are seen.

25.0 Lighting

25.1 Lighting is one of the most important elements of building design. The human visual system relies on light to operate: no light = no sight. Lighting requirement is increased for older people, visually impaired people and lip readers.



25.2 When developing a light system consider:

- That reflection and glare from shiny surfaces can cause visual confusion
- That shadows can give rise to optical illusions
- That pools of light and dark can mask obstructions
- Uniformity and evenness
- Potential hazards which may need to be made obvious
- Features which you may wish to highlight e.g. signage

25.3 Part M Building Regulations requires that lighting is considered:

- On the route to the principal or accessible alternative entrance
- Where there is stepped or ramped access
- To help visitors to identify entrances

26.0 Internal Facilities

26.1 Guidance on the design requirements for internal facilities of a building can be found in Part M Building Regulations 2004 and BS8300:2001.

26.2 Some design or redesign may affect the finalised size of the property. For example, note the enhanced toilet requirements of Part M 2004. This may in turn affect your application for planning permission.



26.3 The city council recommends that in large building redevelopments, e.g. shopping malls and sports complexes, consideration should be given to the provision of an enlarged unisex toilet incorporating an adult changing table.

27.0 Schools and Education Premises

27.1 New build schools, alterations and extensions to schools within the Stoke-on-Trent area must be designed to the requirements of:

- Part M Building Regulations 2004
- BS 8300:2001
- Building Bulletin 91 DfES publication
- Building Bulletin 94 DfES publication

27.2 Where design does not comply with this legislation, the design must be agreed by the Local Education Authority and the Access Team of Stoke-on-Trent City Council. Non-compliant design will only be accepted when all other alternatives have been considered and the circumstances are deemed to be exceptional.



28.0 Sports Developments

28.1 Sports developments must be designed to follow the Sport England publication "Guidance note: Access for Disabled People" December 2002. This document also includes audit sheets which can be useful in preparing Design and Access Statements. The document can be downloaded from – www.sportengland.org



29.0 Buildings of Historical and Architectural Interest

29.1 Stoke-on-Trent has many buildings of historic interest. Stoke-on-Trent City Council aims to improve the accessibility of its historic buildings whilst retaining the special character of our heritage.

29.2 Access solutions may call for flair and innovation – a little “thinking outside the box” in terms of design. The city council’s Access Officer may be able to assist with guidance.



29.3 Guidance has been produced by English Heritage “Easy Access to Historic Buildings”. Another useful source of guidance is “Access to the Historic Environment”, Lisa Foster (ISBN 1 873394 18 7)

29.4 The usual starting point is to undertake an access audit, which considers the building with regard to a very wide range of disabilities that the Disability Discrimination Act covers. You may wish to retain the services of a qualified Access Consultant at this point. Some architects and surveyors are also able to undertake this work.

29.5 Reconciling the aims of improving access with the need to conserve the importance and significance of the historic building is the next step. Your architect or surveyor may already have the skills to undertake this alone. However, it is always advisable to also seek the advice of the Conservation Officer, English Heritage and the local Access Officer, depending on the sensitivity and importance of the building, to ensure that proposals for alterations protect or enhance the historic building, and are of a suitable quality and effectiveness for people with disabilities to justify the alteration.

29.6 The Disability Discrimination Act does not override the need for planning permission, listed building and/or scheduled monument consent and it may not be possible to improve access to some parts of some historic buildings. A measure of compromise, what PPG15 calls “a flexible and pragmatic approach”, is recommended to preserve historic value and significance. In certain cases it may be prudent for a relaxation of the building regulations to allow for a “reasonable” access solution.

29.7 Usually, it is the lack of quality and effectiveness of a solution that may lead to an objection to a proposal. It is generally expected that the conservation principles of reversibility apply and we would hope to see a layer of history added rather than historic fabric and evidence of previous generations’ work and values removed.

29.8 It is not envisaged that ramps, lifts etc. will be suitable for all buildings, particularly when they may adversely affect their character. In these cases it is likely that a more pragmatic approach will be taken to balance the needs of the users and the character of the building. Although economic restraint is also an

aspect of reasonableness, as a service provider you are expected to plan finances and review arrangements periodically.

- 29.9 Where physical barriers cannot apparently be overcome by making alterations and in exceptional circumstances, the Disability Discrimination Act also allows for alternative means of providing a service. Examples of this include: mail order or a “virtual” visit, or using an alternative route into the building, or providing personal assistance, or ensuring good access to services is provided on the ground floor. These may be referred to as managed solutions. Part M of the Building Regulations has undergone a revision and the Approved Document now requires the submission of an Access Statement with a Building Regulations application. This statement can be used to explain why the historic specialness of the building requires a deviation away from standard solutions.
- 29.10 In summary, each historic building presents a case that may require a one off solution and therefore requires individual attention. Unfortunately one solution will certainly not fit all and a balance must be reached to ensure that a reasonable level of access is provided without having a significant impact on the building.
- 29.11 Planning policy concerned with Listed Buildings is much stricter than non-listed buildings. Any alteration that affects the character or appearance of the building will require listed building consent; therefore in the majority of cases, Disability Discrimination Act additions will need listed building consent. It is important to remember that alterations to the inside of a listed building also require listed building consent as they affect the character or appearance. It is vital to seek advice from both the local authority Access Officer and Conservation Officer whose objective is to work together to provide the appropriate access solution.
- 29.12 If you have any questions or need advice on listed buildings you can call us on (01782) 232477, email us at heritage@stoke.gov.uk or write to us at:

Urban Design and Conservation
Stoke-on-Trent City Council
PO Box 630
Civic Centre, Glebe Street
Stoke-on-Trent ST4 1RF

30.0 Green Spaces and Play Areas

- 30.1 Quality green spaces in urban areas are fundamental to quality of life. They can make areas more desirable, support social cohesion, benefit children and young people and enhance the environment. Therefore green spaces must be accessible to all.
- 30.2 Paths in green spaces are vital to accessibility and should share the same design as urban paths / approach routes in terms of gradient and dimensions.
- 30.3 Surfaces should be smooth, firm and non-slip. The most satisfactory surface (if tarmac, concrete or asphalt are aesthetically inappropriate) is well-compacted limestone or sandstone aggregate which contains fine material for binding. When work is being carried out at a Site of Special Scientific Interest (SSSI), English Nature must be consulted.
- 30.4 Where path gradients exceed 1:20, appropriate handrails must be provided. See Section 18. Steep drops in gradient, for example, at the banks of a stream or river should be appropriately guarded.
- 30.5 Barriers to prevent motorcycle incursion into a green space must be carefully designed so as not to exclude people with pushchairs, cyclists with panniers and mobility aid users.
- 30.6 Seating should be provided to provide rest areas for older or disabled people. See 12.4.
- 30.7 Conservation Areas within the City represent a varied range of environments and have been identified in order that their special unique architectural or historic interest can be protected or enhanced. A number of conservation areas cover canals and adjoining towing paths. As with listed buildings (identified in Section 29), a flexible and pragmatic approach will be needed to ensure that the needs of the users are met and special attention is paid to preserving or enhancing the character or appearance of conservation areas.
- 30.8 The Sensory Trust can help with the design of accessible green spaces www.sensorytrust.org.uk
- 30.9 Accessible play space design can be found in Developing Access Play Space – A Good Practice Guide. E.mail odpm@twoten.press.net

Contact

For further information or advice about inclusive design, please contact:

Access Officer
PO Box 630
Civic Centre
Glebe Street
Stoke-on-Trent
ST4 1RF

Telephone: 01782 232236/236667
Fax: 01782 236345
Minicom: 01782 236919
E-mail: disabledaccess@stoke.gov.uk

Acknowledgement

Stoke-on-Trent City Council would like to thank Stoke Access Group (STAG) for their help and support in the development of this document.

Sources of Reference

- Approved Document M Building Regulations 2004
- BS8300:2001
- Inclusive Mobility - Department for Transport
- Building Sight RNIB ISBN 186048 014 4
- Traffic Advisory Leaflet 5/95 - Department for Transport
- Guidance on the use of Tactile Paving Surfaces – DETR / Scottish Office
- www.mobility-unit.detr.gov.uk/guide/tactile/index.html
- Sign Design Guide – JMU / Sign Design Society ISBN 185878 412 3
- Easy Access to Historic Buildings 2004 – English Heritage
- Access to the Historic Environment Lisa Foster ISBN18718 7
- Accessible Stadia – Football Licensing Authority / Football Stadia Improvement Fund ISBN 0 9546293 0 2
- Designing for Accessibility – Centre for Accessible Environments
- ISBN 1 85946 143 3
- Access Prohibited – RNIB
- Guide to Safety at Sports Grounds Stationery Office ISBN 0 11 300095 2
- Easy Access to Historic Landscapes 2005 – English Heritage
- Planning Principles for Landscape Access and Recreation – Natural England (Countryside Agency)
- Environmental Quality in Spatial Planning - Natural England (Countryside Agency)
- Planning and Access for Disabled People – A Good Practice Guide (ODPM 2003)
- Access Statements – CABE (www.cabe.org.uk)
- Circular 01/2006 (www.communities.gov.uk)

Appendix 1

List of 'Saved' Development Plan Policies to which Inclusive Design Access for All Supplementary Planning Document is Linked

Stoke-on-Trent City Local Plan 2001

Policy BP10 – Design of New Development

In considering new development proposals particular regard will be given to:

- a) external appearance;
- b) scale;
- c) relationship with adjoining areas;
- d) layout and space around buildings, including the well-being of pedestrians;
- e) landscaping;
- f) access provision for disabled persons.

Development proposals in prominent or environmentally sensitive locations shall require a higher standard of design and finish than normally expected in order to enhance the area.

Policy CP1 – Access for Disabled People

The City Council will seek to ensure that all buildings used by the general public, open spaces, facilities and street works cater sufficiently for the needs of disabled people.

National Planning Policy Context for Inclusive Design Access for All Supplementary Planning Document

Planning Policy Statement 1 'Delivering Sustainable Development' (PPS1)

PPS1 sets out the overarching planning policies on the delivery of sustainable development through the planning system.

Paragraph 13 of PPS1 sets out a number of key principles that are to be applied to ensure that both development plans and development control decisions contribute to the delivery of sustainable development.

It is stated that planning policies should promote high quality inclusive design in the layout of new developments and individual buildings in terms of function and impact not just for the short term but over the lifetime of the development.

It is also stated that development plans should contain clear, comprehensive and inclusive access policies in terms of both location and external physical access. Such policies should consider people's diverse needs and aim to break down unnecessary barriers and exclusions in a manner that benefits the entire community.

Paragraphs 33 and 34 state that good design ensures attractive usable, durable and adaptable places and is a key element in achieving sustainable development. It is advised that planning authorities should plan positively for the achievement of high quality and inclusive design for all development (including individual buildings, public and private spaces and wider area development schemes).

Planning Policy Statement 3 'Housing' (PPS3)

Reflecting advice in PPS1, PPS3 advocates that good design should contribute positively to making places better for people. It is advised that design policies should be aimed at creating places, streets and spaces which meet the needs of people, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity and maintain and improve local character.

Planning Policy Statement 6 'Planning for Town Centres' (PPS6)

One of the Government's objectives is to promote high quality and inclusive design, improve the quality of the public realm and open spaces, protect and enhance the architectural and historic heritage of centres, provide a sense of place and a focus for the community and for civic activity and ensure that town centres provide an attractive, accessible and safe environment for businesses, shoppers and residents.

Planning Policy Statement 12 'Local Development Frameworks' (PPS12)

Advice in PPS12 states that in preparing local development documents local planning authorities must include policies on design and access and that well-designed development responds well to the local physical, social and economic context being safe, clean, attractive and accessible for all users.

Planning Policy Guidance 15 'Planning and the Historic Environment' (PPG15)

PPG15 states that it is important in principle that disabled people should have dignified easy access to and within historic buildings. It is advised that if it is treated as part of an integrated review of access requirements for all visitors or users, and a flexible and pragmatic approach is taken, it should normally be possible to plan suitable access for disabled people without compromising a building's special interest. Alternative routes or re-organizing the use of spaces may achieve the desired result without the need for damaging alterations.

Planning Policy Guidance Note 17 Planning for Open Space Sport and Recreation (PPG17)

PPG17 advises that in looking to improve existing open space and facilities local authorities should encourage better accessibility of existing open spaces and sports and recreational facilities, taking account of the mobility needs in the local population.

Also, in identifying where to locate new areas of open space, sports and recreational facilities, local authorities should promote access by walking, cycling and public transport, and ensure that facilities are accessible for people with disabilities.

Appendix 3

Dimensions associated with comfortable and extended reach ranges

Person	Access	Reach Angle	Height (H)		Depth (D)	
			Comfortable mm	Extended mm	Comfortable mm	Extended mm
Wheelchair user	Front	+70°	1000	1150	90	120
		Horizontal	(750)	(750)	180	230
		-24°	650	650	120	200
	Side	+70°	1060	1170	100	135
		Horizontal	(750)	(750)	220	310
		-24°	665	630	165	230
Ambulant disabled	Front	+70°	1500	1625	200	250
		Horizontal	(850)	(850)	280	400
		-24°	750	700	180	310
<p>NOTE 1 Dimensions have been rounded to the nearest 5mm</p> <p>NOTE 2 Dimensions in brackets are for the horizontal reference plane</p> <p>NOTE 3 It is assumed that any kneehole allows full reach capabilities</p> <p>NOTE 4 Maximum heights are measured from the 70° line; minimum heights from the -24° line (see figure below)</p> <p>NOTE 5 For some activities, the recommended dimensions are extended beyond those resulting from research trials on the basis of accepted practice</p>						

Appendix 4

Visual Contrast

The appropriate use of visual contrast:

- Assists orientation
- Assists independent way finding
- Improves the safety of users particularly for those who cannot distinguish differences in colour

Approved Document M and BS8300:2001 states “contrast visually, when used to indicate the visual perception of one element of the building, or fitting within the building, against another means that the difference in light reflectance between two surfaces is greater than 30 points”.

Light reflectance value (LRV) is the measure of perceived brightness of how light or dark a colour is. That is: how much useful light is reflected off a surface.

The higher the LRV the lighter the colour. Colour palettes have numbers falling between 04 and 83. White has a LRV of around 85. A perfect total black is assumed to have an LRV of 0 (in reality it is usually slightly higher than this). Pastels fall between 75 and 83.

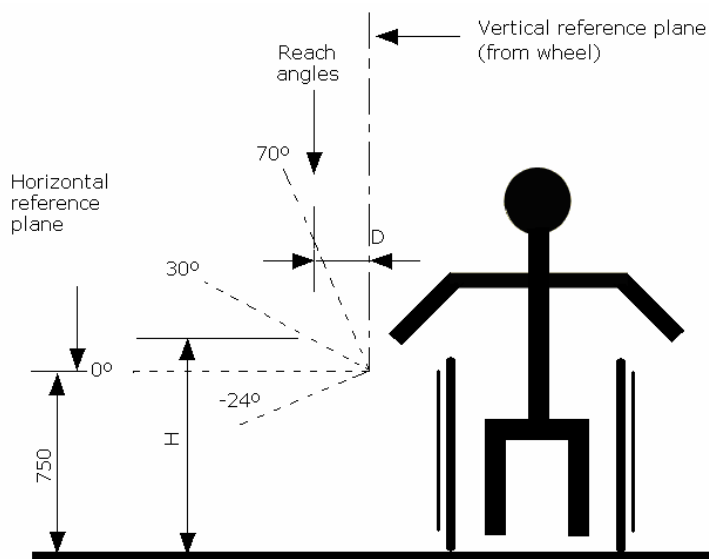
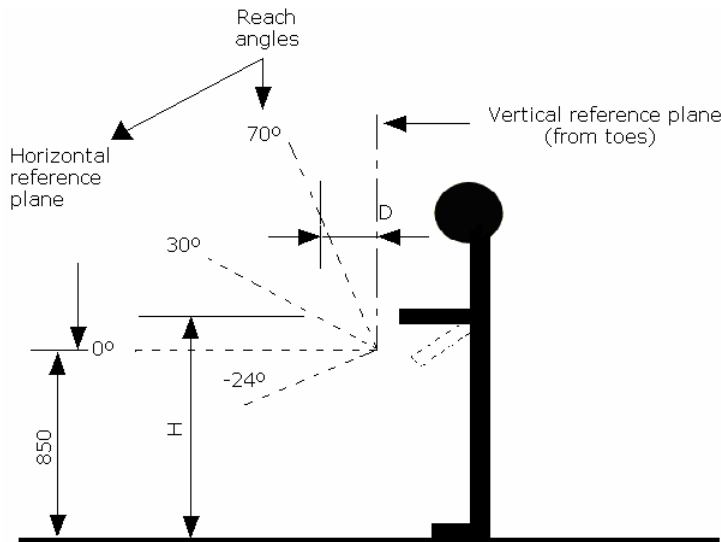
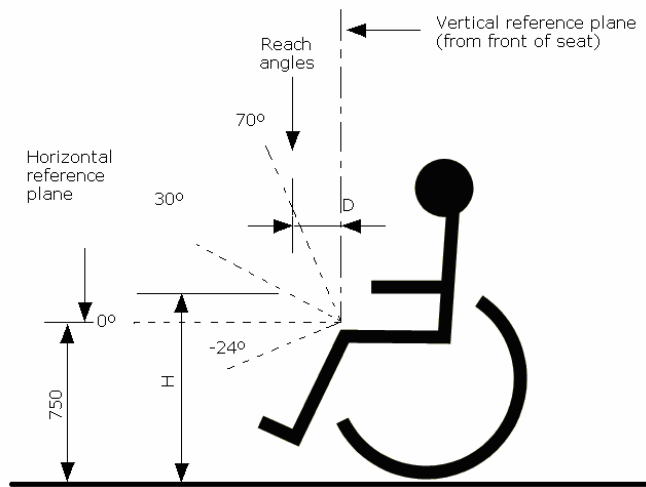
The University of Reading in association with the Joint Mobility Unit and Dulux (ICI) has done extensive research into this area. For more information contact:

- www.inclusive-environments.com
- www.jmuaccess.org.uk
- www.duluxtrade.co.uk

For more information see Annex G BS 8300:2001

Dimensional Data

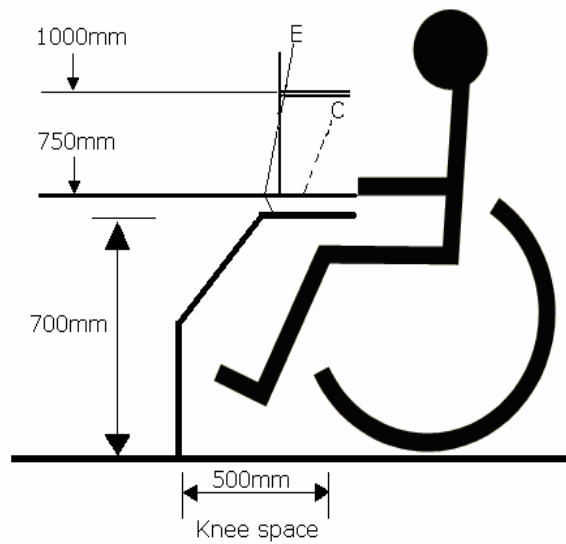
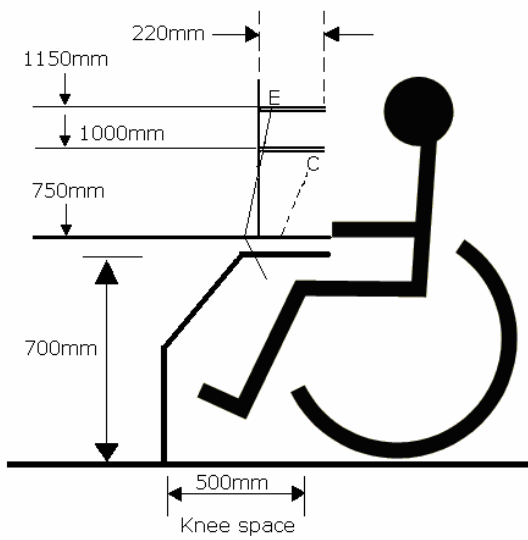
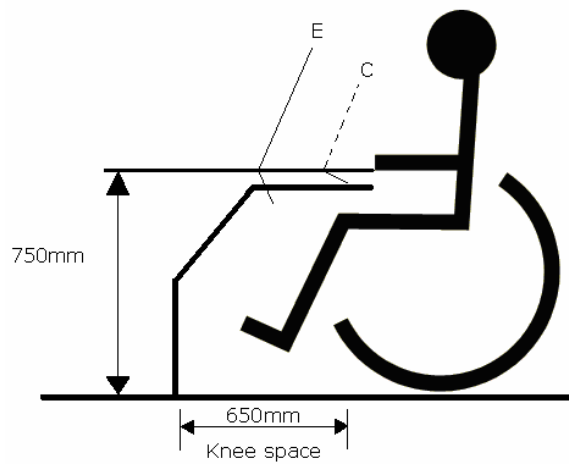
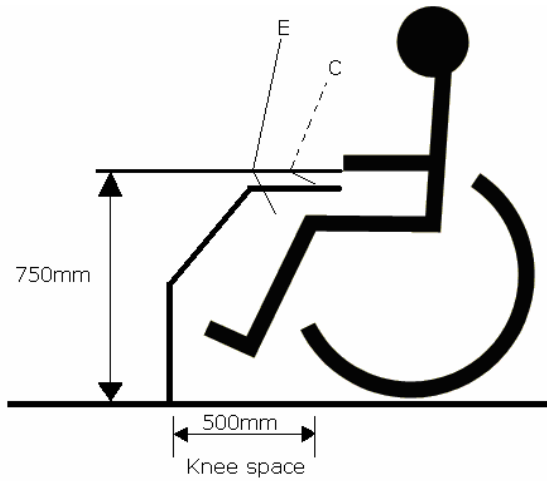
Reference planes, reach angles and definition of height / depth



Note 1 Horizontal and vertical dimensions are measured from where the fist passes through each angle

Note 2 Maximum heights in the table (previous page) are measured from the 70° line; minimum heights, from the -24° line

Examples of applying reach range data to common activities



E = Extended reach (solid contour)
 C = Comfortable reach (broken line contour)

Glossary

Blue Badge

A badge held by a disabled person which allows them to park their car on double-yellow lines, providing this does not create an obstruction. Most car parks also have wider bays for use by Blue Badge holders who use mobility aids, such as wheelchairs.



Crossfall

A slight slope running across a path, pavement, ramp or landing to allow water to run off.

Flight

A series of steps between one floor or landing and the next.

Going (ramps) The total horizontal length of the ramp.

Going (steps) The depth of each individual step. Also referred to as the “tread” of the step.

Manifestation

A decoration or logo which is applied to glass doors and screens to increase the visibility of the glass. Approved Document M states that the manifestation should be “on the glass at two levels, 850 to 1000mm and 1400 to 1600mm above the floor, contrasting visually with the background seen through the glass (both from inside and outside) in all lighting conditions”. The manifestation should be “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”.



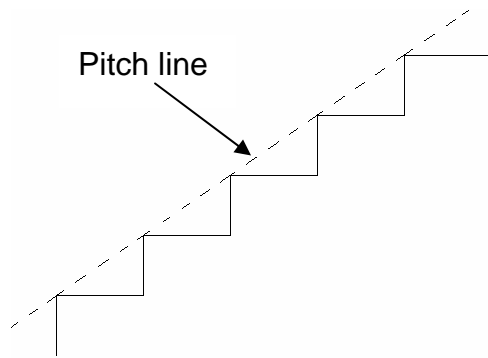
Nosing

The edge of a step. Approved Document M requires step nosings to be “made apparent by means of a permanently contrasting material 55mm wide on both the tread and the riser”, as in the example below.



Pitch line

An imaginary line between step nosings. Height of handrails are measured from this line.



Rise (ramps)

The total height that the ramp climbs.

Rise (steps)

The height of each individual step.

Vision panel

A glazed panel in a door to allow people to check for an obstruction on the other side of the door before opening it. Approved Document M states “where appropriate in door leaves or side panels wider than 450mm, vision panels towards the leading edge of the door have vertical dimensions which include at least the minimum zone, or zones, of visibility between 500mm and 1500mm from the floor, if necessary interrupted between 800mm and 1150mm above the floor, e.g. to accommodate an intermediate horizontal rail”



Conversion

Metric			Imperial
1 millimetre (mm)		→	0.03937 in
1 centimetre (cm)	10mm	→	0.3937 in
1 metre (m)	1000mm / 100cm	→	1.0936 yd

For further information please contact the City Council by post at:

Planning Policy Team
Directorate of Regeneration
PO Box 630
Civic Centre
Glebe Street
Stoke on Trent
ST4 1HH

or by email:
planning.policy@stoke.gov.uk

or by telephone on:
01782 236339
minicom 01782 236919

or in person at
Main Reception, Civic Centre

This leaflet is also available on tape or in large print.

If you have difficulty reading this document or require further information,
please call 01782 236339

ਜੇ ਕਰ ਤੁਸੀਂ ਇਹ ਕਿਤਾਬਚਾ ਨਹੀਂ ਪੜ੍ਹ ਸਕਦੇ ਤਾਂ ਸਾਨੂੰ ਦੱਸੋ
ਅਸੀਂ ਤੁਹਾਡੀ ਮੱਦਦ ਕਰਾਂਗੇ । 01782 236339

यदि आप यह पुस्तिका नहीं पढ़ सकते तो हमें बताएं
हम आपकी सहायता करेंगे । 01782 236339

اگر آپ کو اس کتابچے (پیک) کو پڑھنے میں مشکل پیش آئے، تو ہم سے رابطہ قائم کریں،
ہم اس کیلئے آپکی مدد کر سکتے ہیں، فون نمبر 01782 236339