Introduction

This venue sheet provides some basic guidelines for venue designers, managers and others who wish to see venues used by disabled people. It refers to many simple and inexpensive ways in which venues can be adapted or modified, even if full access for disabled people was not considered at the design stage.

There is a great deal of advice available elsewhere, but it is mainly in technical documents and not easy to read. This guide has been produced to simplify the issues.

Although this guide is not comprehensive, the Kent County Council can provide more detailed sources of reference on design for disabled people, and also on examples of good practice.

Every effort has been made to ensure that the information is correct. However, the council has compiled the guide from a variety of sources and cannot be held responsible for any misinterpretation of the

It should be noted that ensuring access to, egress from and circulation within venues should be supplemented by an appropriate understanding of disabled peoples' needs by venue managers, and by the availability of detailed information on opportunities.

It is important to consider the needs of all users when designing or adapting venues, but there are specific considerations for disabled people. For ease of reference, this venue sheet refers to the following:

- visual impairment
- deaf and hearing impaired
- people with a learning disability
- wheelchair users and ambulant disabled people.

Disabled people themselves should also be involved in the planning and consultation processes involved in facility design.
Visual impairment

Guidance note
Venue access and circulation for disabled people

The predominant need of the totally blind is for non-visual clues such as changes in surface texture, raised lettering and suitable acoustics. Partially sighted people can rely on more visual clues, and may benefit from bright or direct lighting, strong colour contrast and large lettering.

**Transport and exterior spaces**

Blind and visually impaired people can be driven to the venue or may rely on public transport. Ideally, venues should be well served by public transport, and the route to the centre should be safe and simple.

The main entrance should be clearly recognisable and well signposted and a button which can be pressed for assistance should be provided in an accessible place.

External footpaths should be level and well-lit with clearly-marked contrasting edges.

Handrails should be provided wherever possible. They can be used to indicate directions, and can warn and protect against possible hazards and changes in level. They are especially useful when having to use steps.

Steps should have contrasting edges and a change of surface texture should be used at the top and bottom.

Glass doors can be made less hazardous for partially sighted people if brightly coloured horizontal strips are stuck or painted on them.

**Sound and acoustics in buildings**

Positive sounds from objects such as electric doors, lifts, cash registers and vending machines can help a blind person to locate different areas of a building. Written information can be coupled with audible information through public address systems and tape guides.

**Texture and tactile clues**

Changes in floor and/or wall texture can indicate routes or hazards: e.g. flights of stairs can affect acoustic quality.

Edges should be a surface with a different texture and colour from the surrounding area.

Controls, switches and lift buttons should be raised and not flush, and lift controls should have embossed digits to aid identification of the correct button.

Door labels, locker numbers and signs can be raised and/or embossed in Braille. It is very simple to manufacture ordinary signs and numbers with raised letters and digits contrasting with their background in colour.
Deafness is an isolating impairment and there are many variations in type and amount of hearing loss. Some people are deaf to speech but not all sound, while others can only hear above a certain threshold or at certain frequencies. People who have been deaf from birth may have a small oral vocabulary and experience difficulty with the written as well as the spoken word.

Deafness is not a particularly disabling condition for all participation or spectating. Most activities depend on vision and physical ability, not on good hearing. Two points need to be taken into consideration when examining cultural provision for people who are deaf or hearing impaired; acoustics and communication.

Deaf and hearing impaired

Hazards and obstacles
Contrasts in texture and colours are useful in protecting the visually impaired person from injury. Obstacles presenting the biggest problem are those which are temporary or unpredictable such as bicycles, roadworks, dustbins, ladders, bollards, equipment stored in corridors and cleaning equipment.

Light and colour
Good lighting and colour contrast are important for people who are not totally blind. Levels of lighting should be constant in all areas of the building, especially social areas, toilets, changing areas and locker rooms. Colour contrast can be used for directional guidance and hazard warning can be given through colour contrast.

Signposting
Clear, standardised signs placed at eye level or just above head height are beneficial to all. Signs and written information should be in large print, preferably black on white or yellow, and should be of consistent design and in logically grouped locations.

Touch maps
A touch map is designed to be read by the finger and not the eye. A blind person can use a touch map to get an overall impression of the layout of an area, to learn the location of facilities and to plan a route between one point and another.

One general point is that consideration in any venue design should also be given to the small percentage of visually impaired people who have guide dogs.

Acoustics
People with standard hearing can often cope adequately with imperfect acoustics. People who are hearing impaired will experience many more restrictions and may not be able to distinguish speech from background noise in a room which is not properly insulated, or which has insufficient sound-absorbing surfaces.

Many venues have been built with unnecessarily high ceilings and a general reduction in ceiling height would reduce reverberation times and also help to reduce heating and ventilation costs.

Communication
Without written and visible information deaf people are immediately isolated. Signposting, labelling and displays of information should be clear and consistent.

Signs need to be well lit, and wording should be simple and unambiguous.

Loudspeaker announcements and commentaries should be duplicated by visual display panels.

For some venues it’s worthwhile providing an inductionloop. Further information on the installation of such a system can be obtained from The Institute of Sound and Communication Engineers, PO Box 7966, Reading, Berkshire RG6 7WY. Email: tech@isce.org.uk Note that a licence must be obtained from the Home Office to operate a loop in a public building or school.

Fire alarms should incorporate visual and audible signals.

One general point is that consideration in any venue design should also be given to the small percentage of hearing impaired people who have assistance dogs.
Wheelchair users and ambulant disabled people

Some people in wheelchairs are totally dependent and require assistance to move, while others are highly mobile. If the needs of the independent users are met the needs of the assisted users will also be met.

It is important to remember that wheelchair users make up a very small percentage of all disabled people, but they can be the most disadvantaged in terms of mobility in the built environment because of the following factors:

a  being able to go only where the wheels will allow
b  being able to go only where the environment allows.

An ambulant disabled person is defined as someone who walks but whose disability impedes mobility, and who may or may not use walking aids such as callipers or crutches.

Transport and parking

Parking bays for private vehicles or special buses and ambulances should be sited close to the main entrance and not more than 40m away.

Disability bays for Blue Badge holders should be provided.

The diagrams below show the recommended standard dimensions for parking bay spaces:

<table>
<thead>
<tr>
<th>Bay Type</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard bay</td>
<td>2,400</td>
</tr>
<tr>
<td>Wheelchair users</td>
<td>3,200 - 3,600</td>
</tr>
<tr>
<td>Ambulant disabled</td>
<td>2,800 - 3,000</td>
</tr>
</tbody>
</table>

All measurements in millimetres
Footpaths

Unless suitable ramps are provided, changes in level along the access routes should be avoided.

The minimum width for wheelchair users is 1,200mm or 2,000mm, to allow wheelchairs or prams to pass each other.

Gradients should not exceed 1 in 12 for ambulant disabled people and assisted wheelchair users and 1 in 20 for independent wheelchair users.

While wheelchair users need ramped access, many ambulant disabled people, e.g. amputees who walk using a prosthetic leg, prefer to use steps.

Surfaces on footpaths should be roughened sufficiently to give a good grip to wheelchair tyres, as well as being slip resistant for ambulant people.

Entrance Area

The standard access symbol should be prominently displayed outside the entrance and a bell that users can press for assistance can be provided near the entrance. This is often used for all facility users.

Entrance doors should give a clear opening width of not less than 800mm. Turnstiles and revolving doors are very difficult for wheelchair users to negotiate, so a separate side-hung pass door should be provided. Replacing hinges with cranked hinges can sometimes increase a door opening. Thresholds should not be above the floor surface and attention should also be given to mat wells and gratings.

Automatic opening doors are ideal for wheelchair users but must remain open for as long as the user is within the opening area and must not close automatically after a standard time lapse. There should be a clear minimum distance of 2.1m between doors. If possible doors should not open towards the wheelchair user.

A fold down seat can be provided on the wall near any telephone, both of which should be fixed at a low level.

Changing areas

Changing areas should cater for individual wheelchair users arriving independently or in small groups during public sessions, as well as for large groups of users. Panic buttons are a potentially useful additional feature.

Showers, toilets and changing cubicles should allow for transfer from a wheelchair. Additionally, showers should have a bench of seats with support rails. There should be no step up or down into any shower compartment.

Mirrors should extend downwards, and coat hooks should be provided at a height of 1.3m to suit wheelchair users and children.

It is particularly important that changing facilities are close to the activity area because sticks, callipers, etc, may have to be deposited there. Storage areas for such items are useful.
Learning disability

If basic design recommendations are followed, there is little that can be added to a building to make it more suitable for people with a learning disability. The facility needs to have a logical and simple layout, and changing areas should allow for people with a learning disability to be accompanied by carers or instructors.

Plans of the layout of the building, together with signposting, should be simple, clear and logical. For those who may not be accompanied, it would be useful to have enquiry and reception desks in obvious well-lit positions.

Wording and labelling, using easily recognisable symbols with signage, need to be clear and unambiguous, and many of the points referred to already for those who are sensory impaired also apply to those with a learning disability.

References

Elements of this venue sheet were reproduced or summarised by kind permission of Arun District Council and appear in full within its publication An investigation into Leisure Provision for People with Disabilities, by Alison Beadsworth (1990). Other sources of information include the following:

**Department of the Environment (1983)**
Development and Operation of Leisure Venues, HMSO, London

**Department of the Environment (1985)**
Building Regulations, Part M (Access for Disabled People) of Schedule 1 to the Building Regulations, HMSO, London

**Disabled Living Foundation (1984)**

**Centre for Accessible Environments**
Designing for Accessibility

**Selwyn Goldsmith (1976)**
Designing for the Disabled, 3rd Edition. RIBA

**Sports Council**
Facilities for Disabled People. Data Sheet 60.9
Acknowledgements

John Stride, Leisure Development Manager, Arun District Council.