

Accessibility Standards in Outdoor Environments

Dr Ian Newman¹ and David Park²

¹Chief Executive, Fieldfare Trust, UK

²Chief of the Office of Accessibility, National Park Services, USA

Abstract

This paper reviews approaches adopted in the UK and the USA to the establishment and implementation of accessibility standards for outdoor environments. The history and current position of standards for built environments are outlined for both the US and the UK. The situation regarding United States Standards for the Outdoor Environment and UK Countryside for All Accessibility Standards is reviewed.

A series of short discussion points expand on some of the issues relating to accessibility standards in countryside and outdoor environments. These touch on the distinction between built and outdoor environments, non-compliance with standards and the approaches followed in the UK and USA, and achieving the least restrictive access.

Tables detailing the factors incorporated into countryside/outdoor accessibility standards in the UK and the USA are provided together with brief comments on the relevance of those factors to disabled visitors.

Keywords: Access; disabled people; natural areas; social policy; standards; legislation

1. US Position on Accessibility Standards for the Built Environment

Standards for Architectural Accessibility have existed in the United States since 1961 when an organization called the American National Standards Institute (ANSI) created and published a document entitled “Specifications for Making Buildings and Facilities Accessible to, and Usable by, Physically Handicapped People”. ANSI is a non-governmental, national organization that develops and publishes recommended standards in multiple areas of American life. These original accessibility standards were developed by a committee comprising representatives from 52 organizations representing associations of people with disabilities, rehabilitation professionals, builders and manufacturers. This original document, called ANSI A117.1, served as the technical base for the development of subsequent standards developed by the federal government and most of the 50 state governments.

Architectural Accessibility has been legally mandated in the United States since the US Congress enacted the Architectural Barriers Act in 1968. This Act requires all buildings and facilities built or renovated in whole or in part with federal funds to be accessible to, and usable by, physically disabled persons, in conformance with national accessibility standards to be established by the government. Subsequently, in 1973, Congress established the US Architectural and Transportation Barriers Compliance Board (currently the US Access Board), to oversee compliance with the law and to develop minimum guidelines and requirements for the federal standards. Utilizing the ANSI standards as a starting point and working with several federal agencies, the Uniform Federal Accessibility Standards (UFAS) were established in 1984.

In 1973, the US Congress passed another law that has had a significant impact on the lives of people with disabilities and has resulted in major changes in the way services are provided for

them. This law is Section 504 of the Rehabilitation Act of 1973. This law is very short but is very encompassing. It introduced the concept of “nondiscrimination on the basis of disability” into the equation of providing accessible facilities. Section 504 states:

“No otherwise qualified handicapped individual in the United States... shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance or under any program or activity conducted by any Executive agency...”

The government regulations that help to implement this law emphasize equal opportunity, nondiscrimination, equal benefits and the provision of services and opportunities in the “most integrated setting”.

The Architectural Barriers Act and Section 504 only applied to the expenditure of ‘federal’ funds. Buildings, facilities and programmes built or offered by the individual states or local governments were not required to be accessible, unless the state or local government enacted similar legislation (as many of them did). This situation was rectified in 1990 with the passage of the Americans with Disabilities Act (ADA). The ADA, in its broadest sense, is a major nondiscrimination law that prohibits discrimination against people with disabilities solely on the basis of their disability. It contains a number of different sections but extends the coverage of the Architectural Barriers Act and Section 504 to all activities conducted by state and local governments and to the vast majority of the private sector. One specific section extends the requirement of ensuring that all new buildings and facilities built after 1990 are designed and constructed to be accessible to people with disabilities. Consequently, in 1991 the Americans with Disabilities Act Accessibility Guidelines (ADAAG) were developed and adopted. This set of standards was based upon the ANSI and the UFAS documents, but also included a number of new provisions that had been developed through a wide range of research and analysis of the implementation of the previous laws. The US government, through the leadership of the US Access Board, is currently in the process of attempting to combine these three standards documents into one central set of standards in order to provide clarity and consistency to architectural access in all areas.

All of these standards were created with significant attention to the ‘anthropomorphic’ of an average individual using a mobility device such as a wheelchair, cane or crutches. For instance the technical provisions for turn radius, the width of an accessible route, the size of spaces for the seating of wheelchairs, and the reach ranges for the operating controls of everyday devices are all based on the ‘footprint’ of an average sized individual using an average sized mobility device. The standards are also based to some degree on basic research that was conducted to determine what an average group of individuals with disabilities can or cannot do independently. For instance, the standard for the maximum slope of a ramp, which is one foot of rise for every 12 feet of length, is based on the research that demonstrated that it was at that degree of incline that less than 50 per cent of the test group could negotiate it for a distance of 30 feet independently. Over the past several years, technological advances have created major changes in the design and construction of mobility devices. Concurrently, as people begin to live longer lives, the ‘aging of society’ has resulted in some changes to the makeup and characteristics of an ‘average population of people with disabilities’. Consequently, it is assumed that research on the capabilities of this population will have to be revisited from time to time.

It is also important to understand that due to the specificity in the standards, and due to the fact that conformance with the standards is legally required, the term 'accessible' has taken on a legal definition. Both the UFAS and the ADAAG define 'accessible' as: "...a site, building, facility or portion thereof that complies with these guidelines". Consequently, it is difficult in the US to use phrases such as 'partially accessible', 'levels of accessibility', or 'accessible with assistance'. A site or facility conforms to the standard or it does not. It is accessible or it is not.

2. UK 'Built Environment' Standards

In the UK accessibility standards have also existed for many years. In 1970 the Chronically Sick and Disabled Persons Act introduced requirements that providers of new and existing buildings used by the public should make provision for people with disabilities. Amended in 1976, the Act was extended to require those providing new places of employment to make provision for disabled people for work purposes.

In 1979 the British Standards Institute published its Code of Practice for access for the disabled to buildings (BS 5810:1979). The BSI is the National Standards Body of the UK. Through engagement and collaboration with its stakeholders, it develops standards and applies innovative standardization solutions to meet the needs of business and society. The Disabled Persons Act 1980 amended the Town and Country Planning Act 1971 so that, when granting planning permission for development, local authorities were required to draw to the attention of successful applicants the social legislation and the guidance contained in BS 5810:1979. This duty was repeated in the 1990 Town and Country Planning Act.

In 1984 the Department of the Environment and the Welsh Office, the Scottish Office and the Department of the Environment (Northern Ireland) introduced the first of a series of building regulations aimed at providing a better standard of provision for disabled people in new non-domestic buildings. In 1999, those regulations were extended to include dwellings. New buildings (and some extensions) constructed since 1985 in England and Wales will have been subject to Part M of the building regulations (access and facilities for disabled people), which requires that "reasonable provision shall be made for disabled people to gain access to and to use the building". Part M was introduced in 1985 and was extended in 1992 and again in 1999. It now applies to new buildings and ground floor extensions to existing buildings but not the existing buildings themselves. Similar provisions apply in Scotland, Wales and Northern Ireland.

The enactment of the Disabilities Discrimination Act (DDA) in 1995 significantly changed the position for disabled people in the UK. The Act makes it unlawful to discriminate against people on the basis of disability. Under Part III of the Act covering goods, facilities and services it is unlawful to refuse to provide a service, to provide a poorer service or to provide a service on less favourable terms on the grounds of disability.

The Disability Rights Commission Act 1999 created the Disability Rights Commission (DRC) as an independent body to help secure civil rights for disabled people and to advise the government on the working of disability legislation. The DRC also has enforcement powers that enable it, among other things, to conduct formal investigations, to serve non-discrimination notices and to issue codes of practice which have to be approved by the Secretary of State and laid before Parliament. A court or tribunal is obliged to take into account any provision of a DRC code of practice that it considers relevant to any proceedings.

From October 1999, service providers were required to take reasonable steps to:

- a) change any practice, policy or procedure which makes it impossible or unreasonably difficult for disabled people to use a service;
- b) provide an auxiliary aid or service which would enable disabled people to use a service;
- c) overcome physical barriers which make it impossible or unreasonably difficult for disabled people to use a service, by providing the service by a reasonable alternative method.

In 2001 the BSI published an updated British Standard: BS8300: 2001 The design of buildings and their approaches to meet the needs of disabled people; a Code of Practice. This was developed through a BSI committee of stakeholders from the disability community and those involved in the design, planning and management of built environments. It drew on dedicated ergonomic research into the mobility needs of a wide range of disabled people. BS5810 is replaced by BS8300, which contains a great deal more detail on access for a wide range of disabled people, not just those with mobility disabilities. It goes beyond the original standard in providing explanations of its specification so that those using it can understand why particular arrangements are accessible to various disabled people.

From 1st October 2004 the DDA further provides that where a “physical feature” makes it impossible or unreasonably difficult for disabled people to make use of a service that is offered to the public, a service provider must take reasonable steps to:

- a) remove the feature; or
- b) alter it so that it no longer has the effect; or
- c) provide a reasonable means of avoiding the feature; or
- d) provide a reasonable alternative method of making the service available to disabled people.

The Rights of Access Code of Practice has been amended to take account of the introduction of these new provisions of the DDA dealing with physical features. The Code now advises that physical features that accord with the objectives, design considerations and provisions set out in the relevant building regulations, will not have to be removed or altered for a period of ten years from the date their installation is complete.

3. United States Standards for the Outdoor Environment

The development of standards for access to the outdoor environment is relatively new compared to those for the built environment. Access to recreation opportunities and to outdoor recreation facilities was specifically mentioned in the Architectural Barriers Act of 1968, and in the Americans with Disabilities Act of 1990. Beginning as early as 1960, several federal and state entities have attempted to draft some guidelines for making outdoor facilities such as campsites, picnic sites and trails accessible. For instance, as early as 1967, the Bureau of Outdoor Recreation, a part of the US Department of the Interior (no longer in existence) published the first technical assistance bulletin on outdoor recreation accessibility. The introduction of that paper reflects the technical papers perspective:

“Recreation in the out of doors offers a broad range of opportunities and experiences that enhance our lives. People with disabilities have the same needs and desires for those opportunities as non disabled persons... It is clearly evident, however, that great numbers of disabled persons are not receiving the benefits of our nation’s recreation resources... architectural barriers, nonacceptance by society, and slowness of the recreation profession to

adjust its programs and facilities to their needs, all have contributed to a serious lack of opportunity”.

The 1967 bulletin suggests a number of ways to modify playgrounds, swimming pools, campgrounds and fishing and boating areas. The “suggested guidelines” were the first published by a federal agency. In reality, however, most of the early attempts to provide access to outdoor experiences resulted in the development of ‘separate’ facilities and opportunities. Special camps were designed for people with disabilities, ‘Braille trails’ were designed for people who were blind, and ‘perfume gardens’ were created for individuals who could not experience with their eyes what individuals with sight can experience. These initial attempts were well intentioned. They opened up the rich world of recreation to many individuals who were previously excluded, but they further separated and isolated people with disabilities from their rightful place in mainstream activities and environments. With the passage of Section 504, in 1973, with its emphasis on equal opportunity and integration, these separate and special programmes and facilities began to disappear. Efforts were initiated to find ways to design and build facilities that served all populations, including those who had a disability.

Efforts to formally develop ‘official standards’ for accessible outdoor areas were begun by the US Access Board in 1993 with the creation of a Recreation Access Advisory Committee (RAAC). This committee issued a report in July 1994 that addressed the various types of recreation facilities and identified the features of each facility type that are not adequately addressed by ADAAG and UFAS. The RAAC made recommendations for developing accessibility guidelines for a wide range of recreation facilities including amusement parks, golf courses, athletic halls and stadiums, health clubs, trails, campgrounds, picnic areas and swimming pools. A subsequent Regulatory Negotiating Committee on Outdoor Developed Areas was established to further refine the recommendations related to trails, picnicking, camping and beaches, and that committee issued a report in 1999. Most of the recommendations from the RAAC report have been developed into national standards that are in the process of being added to UFAS and ADAAG.

While the original UFAS and ADAAG standards for the built environment was the starting point for the development of these guidelines, it was recognized very early in the process that the outdoor environment was ‘fundamentally different’ from the built environment. One primary principle of accessibility laws in the US is that you will not be required to provide access if doing so would change the ‘fundamental nature’ of the activity or the experience. There has been recognition from the beginning that the outdoor environment consists of a wide range of experiences and areas, some of which consist of a high degree of ‘person-made’ modifications, while others are totally void of that influence. One primary objective of the standards development process was to preserve that range of opportunities and to not require any modifications that would ‘fundamentally alter’ that environment. Another way to state this objective is to say that the standards attempt to provide guidelines for providing the highest level of access to the outdoor environment that is practicable, while at the same time preserving and protecting the fundamental nature of the outdoor environment.

Consequently, the US standards provide technical design guidelines that make the facilities in the outdoor environment, such as trails, campgrounds and picnic areas accessible to the majority of people with disabilities, but also provide a framework for departing from those guidelines, or exempting out totally from them, if certain conditions in the environment exist. These four “Conditions for Departure” are as follows:

1. Where compliance would cause substantial harm to cultural, historic, religious, or significant natural features or characteristics;
2. Where compliance would substantially alter the nature of the setting or the purpose of the facility, or portion of the facility;
3. Where compliance would require construction methods or materials that are prohibited by federal, state or local regulations or statutes;
4. Where compliance would not be feasible due to terrain or the prevailing construction practices.

Each of these conditions is somewhat subjective, and requires some degree of study and analysis in order to fully understand their intent. However, they do represent a long deliberate process of attempting to find the appropriate balance between access and preservation. Also, when fully understood and applied, they represent a philosophical concept that will require a high conformity with accessibility provisions in the parts of the environment that are already filled with person-made modifications, and little or no requirements in those environments that are relatively free of those modifications.

4. UK Countryside for All Accessibility Standards

In the UK countryside accessibility standards were first developed through the BT Countryside for All project and published in 1997. Led by the Fieldfare Trust, a series of practical projects together with research into outdoor access across the globe enabled draft standards to be prepared. These were the subject of a wide consultation across the disability community and countryside industry. The publication of these standards was sanctioned by the Countryside for All Advisory Group comprising national disability and countryside organisations from England, Scotland, Wales and Northern Ireland.

These standards were different from the built environment standards pertaining at the time of publication, and indeed they differ from current built environment standards as detailed in building regulations and BS8300: 2001. The Countryside for All Accessibility Standards provide for a lower level of accessibility.

The Countryside for All standards included the premise that as disabled people move into different outdoor settings their expectations of accessibility change. This is based on work in North America and New Zealand on Recreation Opportunity Spectrums as a means of matching management interventions and landscape qualities to acceptable public access regimes. It must be emphasised that the expectations of disabled people used for the Countryside for All Accessibility Standards were defined in terms of the level of the management interventions in an environment they might expect in various settings. Landscape qualities were not used as a basis for defining different standards of accessibility. It is because a countryside setting lacks access facilities or support services that accessibility expectations are lowered and not because it is remote or has a particular landscape quality.

The countryside accessibility standards, unlike the built environment standards, are not referred to by any UK statutes. However, the DDA requires service providers to have taken reasonable steps to obtain advice on what provisions they make for disabled people, how these are implemented and how situations where restricted accessibility persists are justified. As a significant element of the information and advice that is currently available on good practice on countryside access for disabled people it is likely that the Countryside for All Accessibility Standards might be used as a reference point for tribunals and courts should

disputes arise. There is now a proposal that the BSI develop a British Standard covering countryside accessibility standards.

5. Built Environments

Throughout this paper a distinction has been drawn between the built environment and outdoor/countryside environments. This, in reality, is an artificial distinction as all the standards relate to physical features that have been built wherever they are. Outdoor/countryside standards are relevant to paths and trails and their associated furniture, which have been put in place to afford access to the public. The standards are only relevant where there has been a design, construction or management intervention.

A distinction between urban/architectural standards and outdoor/countryside standards is also artificial when considered from the user's point of view. If a disabled person is unable to negotiate an 8 per cent gradient it is irrelevant whether that is in a shopping mall or a nature reserve. That gradient will be a barrier to that person's access in all environments.

6. Non-compliance

In both the UK and USA it is possible for the accessibility of paths and trails to fall short of standards whilst not contravening the respective legislation.

In the USA exceptions or alternative provisions are allowed where substantial environmental or practical constraints exist. The four grounds for exemptions are detailed above. The alternative provisions do allow for steeper gradients and designs that require less impact on the environment. In the UK the position is not so closely defined but less than full accessibility would not be seen as discriminatory if it was unreasonable to achieve it. The definition of unreasonable will be for the courts to decide each case on its merits. However, it is likely that such factors as environmental impact and cost will be determinants of what is reasonable.

Non-compliance with standards does not mean that a trail or path cannot or should not be used by disabled people. It is likely that some people who can gain access to routes meeting the standards will be excluded where compliance has not been fully achieved.

7. Least Restrictive Access

A key function of standards on both sides of the Atlantic is to provide some clarity to designers, planners and managers as to the levels of accessibility they should seek to attain. The acceptance of non-compliance justifications is a recognition that full accessibility is not going to be reached in all outdoor/countryside situations. However, even where a standard cannot be fully achieved the parameters and specifications within the standards are still relevant.

The least restrictive access is the best level of accessibility that can be achieved when all constraints have been taken into account. For instance, it may be that the 15 per cent linear gradient of a path or trail cannot be lowered to less than the 8.3 per cent required by a standard because of cost or environmental limitations. If a 10 per cent gradient is affordable and attainable such improvement would increase the range and number of disabled people who could use the route.

It should be remembered that standards should be treated as minimum specifications and not targets. The least restrictive access approach of doing whatever is possible wherever it is

possible would require that if an accessibility specification in a standard can be exceeded, that is done to maximise its accessibility for disabled people.

The parameters within the UK standards remain relevant for all levels of accessibility. Table 1 lists these parameters and summarises actions that should be taken in seeking the least restrictive access solution.

Table 1: Parameters of Countryside for All Accessibility Standards, UK

Parameter	Actions to minimise restrictions	Comments
Path Width 1200mm - 1000mm	Keep the path as wide as possible	People who need the support of a companion don't have to walk in single file; wheelchair users can manoeuvre comfortably
Path Surface	Provide a firm, stable, non-slip surface; reduce loose material; ensure good compaction	Less trip risk for people who are unsteady on their feet; less effort needed by wheelchair users; more comfort for most users
Barriers	Remove or redesign stiles, restrictive gates and vehicle barriers	Stiles are an absolute barrier to many disabled people and inconvenient for most people
Passing places 2000mm x 1500mm	Provide more space	Wheelchair users and people with visual or mobility impairments need space to manoeuvre
Resting places	Provide seats or perches	People with stamina, strength or balance impairments need to rest
Linear gradient 8.3% - 10%	Reduce gradient as much as possible	Wheelchair users and people with stamina difficulties cannot climb steep gradients
Landings	Provide frequent landings along slopes and ramps	Wheelchair users and people with stamina difficulties need to rest when climbing gradients
Cross gradient 2% - 2.86%	Reduce cross gradients as much as possible	Wheelchair users and people with balance; impairments may struggle on side sloping paths
Surface breaks 12mm	Reduce all gaps in board walks, grills as much as possible	People using sticks or canes may trip or snag in wide gaps; the front wheels of wheelchairs can get caught in wide gaps
Level changes 5mm - 15mm	Remove abrupt level changes and all steps wherever possible	Even small 'steps' can be a barrier or discomfort to wheelchair users and people with mobility impairments; trip risks are reduced for all
Clearance 1200mm x 2100mm	Remove all obstacles intruding from above and beside the path	People with visual impairments will face difficulties; safety is improved for all users

The US recommendations are much more specific, but still include the same parameters as those in the UK. They also draw a distinction between a ‘trail’ and an outdoor recreation access route. Those definitions are as follows:

Trail: A route that is designed, constructed, or designated for recreational pedestrian use or provided as a pedestrian alternative to vehicular routes within a transportation system.

Outdoor Recreation Access Route (ORAR): A continuous unobstructed path designated for pedestrian use that connects accessible elements within a picnic area, camping area or designated trailhead.

The definition of the Outdoor Recreation Access Route was created to reinforce the concept that the outdoor environment is different from the built environment and to create a set of technical provisions that distinguish it from the “Access Route” that already exists in the standards for the built environment.

Table 2: Recommendations for accessibility on Outdoor Recreation Access Routes and Trails, USA

Parameter	Actions to minimise restrictions	Comments
Path Width Trails Outdoor Recreation Access Routes	Must be a minimum of 36” wide. Can be reduced to 32” where at least one of the conditions for departure occurs. Must be a minimum of 36” wide. Can be reduced to 32” for a minimum of 24 inches where conditions for departure occur.	This is consistent with the standards for an access route in the built environment, Exceptions are provided where the conditions for departure are present.
Path Surface	Must be firm and stable, Unless one or more of the conditions for departure occurs.	Slip resistance was dropped because it cannot be guaranteed in the outdoor environment due to the use of natural and non-hardened surfaces. Many materials are available for exterior surfaces that look natural yet remain firm and stable.
Barriers	Accessible trails must be connected to parking areas by an ORAR and an accessible trail head	Stiles or other barriers installed to restrict motor vehicles are an absolute barrier to many disabled people and inconvenient for most people
Passing places Trails: ORAR:	Spaces measuring 60 inches by 60 inches are required every 1000 feet if the clear tread width is less than 60 inches. Similar spaces required every 200 feet.	60-inch clearance is necessary for two wheelchairs to pass if they meet going opposite directions on the trail.

Parameter	Actions to minimise restrictions	Comments
Resting places Trails: ORAR:	Spaces measuring 60 inches in length and as wide as the widest portion of the trail width, and a slope not exceeding 1:20 in any direction Similar spaces required, but with slopes not to exceed 1:33 in any direction	The level spaces are required for people using mobility devices to be able to rest.
Linear gradient Trails: ORAR:	Can be 1:20 or less for any distance; can be 1:12 for a distance of 200ft; can be 1:10 for a distance of 30 ft; can be 1:8 for a distance of 10 ft. Rest intervals are required at the end of those distances and no more than 30% of the trail shall be more than 1:12. Can be 1:20 or less for any distance; 1:12 for a maximum of 50ft.; 1:10 for 30 ft. Rest intervals are required at the end of those distances.	These provisions are based on assertions by people with disabilities that have stated they can manoeuvre steeper gradients if it is for shorter distances. They also attempt to balance accessibility with the constraints imposed by natural topography.
Landings	Rest intervals are required in lieu of level landing areas	
Cross gradient Trails: ORAR:	A cross slope up to 1:20 is allowed. A cross slope up to 1:33 is allowed. An exception permits a cross slope up to 1:20 where necessary to ensure proper drainage.	Cross slopes are difficult to traverse, but trails need to be designed to provide sufficient drainage to prevent ponding and water damage. Also, non-paved surfaces generally require more than a 1:50 cross slope

Parameter	Actions to minimise restrictions	Comments
Surface breaks Trails: ORAR:	Openings shall not permit passage of a ½ inch diameter sphere. Elongated openings shall be placed so the long dimension is perpendicular or diagonal to the dominant direction of travel. Same as above	People using sticks or canes may trip or snag in wide gaps; the front wheels of wheelchairs can get caught in wide gaps
Level Changes Trails: ORAR:	Called Tread Obstacles Where they exist they shall not exceed 2 inches in height. Can be as high as 3 inches where running slope is 1:20 or less Can be up to 1 inch in height. Can be up to 2 inches where bevelled.	These obstacles can occur due to erosion, heaving of surfaces, roots protruding on the path or where different types of surfaces meet. They do provide a major barrier and must be addressed as part of routine maintenance.
Clearance Trails: ORAR:	Object protruding into or above the clear tread width between 27 inches and 80 inches above the trail surface shall not protrude more than 4 inches. Where vertical clearance is reduced to less than 80 inches due to one of the conditions for departure, a barrier to warn blind and visually impaired persons shall be provided. Same as above with no exceptions.	The 27 inches is the highest point at which the cane of a blind person will detect a protruding object before they hit it with their body. The 80 inches is the clear headroom required. Tree limbs are especially dangerous for blind and visually impaired individuals.

Key Concluding Points

Standards are not the answer to everyone's prayers. For some disabled people even the levels of accessibility represented by the standards will not afford them independent mobility. Many service providers in outdoor/countryside environments will not be able to achieve the standards on all their paths and trails.

However, the development of standards in the UK and the USA has provided useful tools to users and managers alike in identifying levels of access that should be aspired to. In that most outdoor/countryside paths and trails will never reach the standard for full accessibility there is a need for further tools that enable managers to improve access levels below the standards. Such tools should also have value for disabled people if they can provide information that enables them to choose where they can go in outdoor environments.

References

USA

Specifications for Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped, ANSI 117.1 (1961) New York: American National Standards Institute.

Uniform Federal Accessibility Standards (1984) Washington DC: US General Services Administration, US Department of Housing and Urban Development, US Department of Defence, US Postal Service.

Americans with Disabilities Act Accessibility Guidelines (1991) Washington DC: US Access Board.

Outdoor Recreation Planning for the Handicapped (1967) Washington DC: US Department of the Interior, Bureau of Outdoor Recreation.

Recommendations for Accessibility Guidelines: Recreation Facilities and Outdoor Developed Areas (1994) Washington DC: Recreation Access Advisory Committee; US Architectural and Transportation Barriers Compliance Board.

UK

Chronically Sick and Disabled Persons Act 1970. London: The Stationery Office.

Town and Country Planning Act 1971. London: The Stationery Office.

Disabled Persons Act 1980. London: The Stationery Office.

Town and Country Planning Act 1990. London: The Stationery Office.

Building Regulations 1991, London: The Stationery Office.

Disability Discrimination Act, 1995. London: The Stationery Office.

BT Countryside for All Good Practice Guide (1997) Sheffield: The Fieldfare Trust

Building Regulations Approved Document, Part M — Access and facilities for disabled people, (1999 edition). London: The Stationery Office.

Technical Standards for Compliance with the Building Standards (Scotland) Regulations. Part T: Access and facilities for disabled people. Edinburgh: The Stationery Office.

Building Regulations (Northern Ireland). Technical Booklet R: Access and facilities for disabled people. Belfast: The Stationery Office

Disability Rights Commission Act 1999. London: The Stationery Office.