



Third edition



# The Access Manual

Designing, auditing and managing  
inclusive built environments

Ann Sawyer and Keith Bright



WILEY Blackwell



# The Access Manual

Third Edition

## From the endorsements and reviews of previous editions:

I welcome this guidance which should enable people to understand access requirements and to undertake access audits. . . . The law is important but how much better if those organisations simply did it right in the first place so the law did not need to be used. This book should help do just that.

*Bert Massie, Chairman of Disability Right Commission*

Please make the most of what you find in this volume, but please don't use it merely to achieve compliance. Use it to spark creativity, humanity and urbanity in the buildings and public spaces we all use every day, so nobody need feel 'this place isn't for me' and everyone feels welcome.

*Richard Simmonds, Chief Executive, CBE*

This is a well-written and practical manual, recommended reading for building engineers concerned with the creation, planning and management of buildings.

*Building Engineer*

Incredibly informative . . . will enable you to keep the edge over non-enlightened competitors.

*Architectural Technology*

This is an excellent book.

*Access Journal*

Both authors are well known for their work on access . . . between them they have produced a useful book that is helpful in the context of our current built environment and what steps can be taken to improve access.

*Barrierfree*

# The Access Manual

Designing, auditing and managing inclusive  
built environments

Third edition

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Architect and Access Consultant

and

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**WILEY** Blackwell

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By 2025, 2.5 million people will have joined the ranks of the active elderly  
– they are entitled to choice and opportunity.

*John H. Penton MBE  
Chartered Architect and Registered Access Consultant*



## About the authors

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His international roles have included working as an advisor to the Building Construction Authority in Singapore on issues related to Universal Design, and working with the Global Alliance on Accessible Technologies and Environments (GAATES) in the development of an international body for the certification and accreditation of access auditors and consultants.



# Foreword

Innovative approaches to design by architects and their clients continue to provide us with buildings and spaces of exceptional quality. What makes a successful building or public space is difficult to encapsulate, but what is often universally demonstrated is a commitment by designers to strive for excellence in terms of aesthetics, environmental performance and inclusive design. The completed project should engage with and have a positive impact on its users. Buildings should of course make a visual statement, but at the Civic Trust Awards, we firmly believe in the concept that architecture and design should be people centred. Inclusive design has been at the forefront of our thinking since the 1990s, and we utilise the services of hundreds of access professionals, working alongside experienced architects, as part of our judging process to ensure this philosophy is maintained.

It is true to say that we still see examples where designers clearly don't fully comprehend the importance of early consultation with respect to accessibility. Inclusive design should not be a bolt-on afterthought, it should be integral to the design process from inception. That way, many issues that would often arise later on can be designed out.

In this book, you will see a number of case studies from the Civic Trust Awards where the client and their architect have appointed an inclusive design consultant or have consulted with a local access group who provide help, advice and guidance throughout the design process. These are the true success stories, where planning, design concept, aesthetics, performance and accessibility are fully integrated.

Not all approaches to design will adopt these same philosophies, but we must continue to strive to help make it become the norm. Inclusive design is not about just meeting minimum standards; it should be about creating an environment that is welcoming and accessible to all users without the need for expensive interventions. Successful design is seamless inclusive design.

**Malcolm Hankey BSC LLB IEng MICE Hon FRIBA**  
**Managing Director**  
**Civic Trust Awards**



# Acknowledgements

I would like to thank all my friends and colleagues who are working to improve the accessibility of buildings and spaces and to promote inclusive design. Since the first edition of this book was published, there has been increased recognition of the importance of providing access for all; it is critical that this is maintained and that inclusive design becomes integral to the design and management of our environment.

Thanks to Vin Goodwin, who supplied some of the photographs, to Keith Bright, whose knowledge and enthusiasm have been invaluable throughout the writing and updating process, and to Joe and Liddy for giving support and inspiration.

**Ann Sawyer**

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Thanks also to Ann Sawyer who has worked so hard to bring this third edition to fruition, to Amanda Spence at the Design Commission for Wales for your valuable help, and to Carole-Anne Davies, Malcolm and Karen Hankey, Ann Skippers, Jane Simpson, Kath Phipps and Simon Turton for your valued friendship and support.

**Keith Bright**





# About the Website

On the book's companion website at <http://www.wiley.com/go/TheAccessManual>, you will find invaluable resources:

- Photo Gallery – with examples of best practice, what to avoid and reasons why
- Access Audit Checklists – for you to download and use
- Case Study Material – demonstrating good practice
- Sources of Guidance on Legislation, Standards and Good Practice
- Information Sources





# Introduction

Buildings are designed for people to use – to give shelter, to house, for work and for play. An environment that is designed to be inclusive allows those activities to take place without restricting access to people with certain abilities only. Inclusive design does not disable the users, it enables independent and equal use.

For many owners, designers and managers of buildings and environments, meeting the needs of all users, and especially disabled people, can seem difficult. However, it is possible to address the needs of the great majority of users with design and management solutions that neither conflict with each other, nor are expensive or difficult to carry out. An inclusive approach requires designers and building managers to consider abilities rather than disabilities and integrate a range of needs into one solution that can be used by everyone. The improvement in accessibility that can result from this approach will benefit all users of the built environment, not just disabled people.

Inclusive design also takes into account the long-term implications of sustainability by providing flexible and responsive developments limiting the need for future adaptation, as well as helping to promote social inclusion. True inclusion goes beyond simply being able to gain access to a building or space. It also allows people to experience designs and management practices that enhance and stimulate mental and physical well-being, reflects the diversity of modern society, encourages mutual relationships and harmony between social groups, and encourages equality in the distribution of economic resources.

Designing inclusively will help those who have duties placed upon them by anti-discrimination legislation such as the Equality Act 2010. Well-designed buildings that meet a broad range of people's needs are more likely

to allow occupiers to meet their duties and can also offer employment and commercial benefits.

## Objectives of the manual

This manual covers the design, improvement, maintenance and management of accessible environments. The intention is to encourage designers, owners and managers of buildings to look at how they can provide and operate buildings, services and employment facilities in a way that allows independent and convenient use by everyone.

The manual is intended to enable people with responsibility for the design and management of the built environment to

- be aware the issues involved in accessibility;
- take account of those issues when commissioning and designing new or refurbished developments;
- understand and commission access audits;
- create and manage an access improvement programme;
- maintain accessibility in buildings and working practices; and
- respond effectively to the legal requirements of the Equality Act 2010 and other relevant legislation.

The first chapter looks at inclusive design and what this means in relation to the design of the built environment and gives information on access appraisals, the access statement and access strategy. Chapters 2 and 3 cover legislation, standards and guidance relating to access. Chapter 4 explains the audit process and how it fits into an access improvement programme, the implementation of improvements and the importance of ongoing access management to ensure accessibility is sustained in use.

The design criteria in Chapter 5 cover access to and use of buildings considering the needs of a wide range of users. The design guidance can be used when designing new buildings or taken as a standard to assess and improve existing ones.

Appendix A contains a number of sheets of 'general acceptability criteria', which can be used to highlight where access problems exist. Appendix B gives sources of reference and further information. Throughout the manual there are boxes giving hints and tips. The information given in the boxes covers issues that are not always found in standards, legislation or other guidance, and includes advice and thoughts that come from the authors' experience.

Inclusive design is about people and their needs, and, in the context of this manual, how these relate to the design, use and management of the built environment. The manual not only includes comprehensive information on standards, legislation and good practice, but also recognises that to achieve a truly accessible environment, designers and operators of buildings must move beyond compliance with standards and adopt a new way of thinking. Taking a creative approach, considering the needs of everyone, integrating those needs into good, thoughtful designs and practices will help achieve an accessible, inclusive, built environment that enables people to participate fully in all aspects of society.



# 1

## Inclusive design

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### An inclusive approach

An inclusively designed and managed building or space will allow everyone to maximise their own individual abilities and enjoy full, equal, confident, independent and safe participation in everyday activities. Inclusive design goes beyond simple accessibility. A design that offers a choice of stepped or ramped approach to a building addresses accessibility for all; however, one that incorporates a level approach for everyone to use is a truly inclusive design.

Design guidance is often based on the needs of a notional ‘average’ person; however, everyone varies from the average in some way. People differ in height, strength and dexterity; can have different visual, hearing or cognitive abilities; or may have respiratory impairments or reduced stamina. Mental health or emotional issues can also affect people’s ability to interact with the built environment. Physical and mental health conditions can be temporary, ongoing or progressive and may vary considerably throughout different stages of life. Older people may have limited mobility; some may use wheelchairs, sticks or crutches. Mobility may be affected by having to carry a child or heavy shopping bags or push a buggy.

Despite this apparently wide diversity of need, many of the issues that affect how people interact with the built environment are similar. For example, good, clear, effective and sensibly used signage incorporating symbols helps everyone, including those whose first language is not that of the information on the sign. Firm, level, non-reflective surfaces will not only benefit people using mobility aids such as a wheelchair or crutches, but also people pushing buggies or carrying luggage. Well-designed lighting, colour and visual contrast may benefit people with sensory or cognitive impairments and will also affect how people feel and are able to respond to spaces and places.

An inclusive approach to design and management does not deny that there are specific areas where particular assistance can be provided. Hearing enhancement systems, such as induction loops, or the provision of information in Braille, are useful to certain building users. Specific provisions that meet particular needs are also part of inclusive design.

Adopting a positive approach and giving careful consideration to the abilities of users, rather than their disabilities or limitations, can identify design outcomes that are able to address the needs of a wide range of building users across the spectrum of ability, age, gender, and religious and cultural diversity. Active and effective management in use will ensure that these identified design expectations will actually be delivered in practice.



**Figure 1.1** The London 2012 Olympic Parklands and Public Realm project, which received a Civic Trust award for Recognition of Excellence in the Built Environment, is a good example of inclusive design in practice.



## Principles of inclusive design

To help achieve this aim, it is useful to understand and adopt the established principles of inclusive design. The Commission for Architecture and the Built Environment (CABE) published guidance on inclusive design, including a set of principles.

CABE was established in 1999 as the UK government's advisors on architecture, urban design and public space in England. It was dissolved in 2011 and subsequently merged with the Design Council.

See Appendix B for details of how to access archived publications from CABE, including those relating to the principles of inclusive design.

In the view of CABE, good design is inclusive design, and design that does not deliver an inclusive environment is not good enough (CABE 2006). They also suggested that good design will not only create inclusive spaces and places that address the needs of all those who will use them, they will also provide relaxing and enjoyable places for people to use (CABE 2008).

The principles proposed by CABE are that environments should be:

- **inclusive** – so everyone can use them safely, easily and with dignity;
- **responsive** – taking into account what people say they need and want;
- **flexible** – so different people can use them in different ways;
- **convenient** – so everyone can use them without too much effort or separation;
- **accommodating** – for all people, regardless of disability, age, mobility, ethnicity or circumstances;
- **welcoming** – with no disabling barriers that might exclude some people;
- **realistic** – offering more than one solution to help balance everyone's needs and recognising that one solution may not work for all.

The Royal Institute of British Architects (RIBA) also identifies a set of principles of inclusive design. These reflect the principles suggested by CABE and also suggest that inclusive design must be central to architecture as it is not a minority or a stand-alone issue in the design process (RIBA 2009). The RIBA defines inclusive design as a process which creates places and spaces that everyone can use with comfort, dignity and convenience, and that seeks to

further an individual's social and economic standing, regardless of their age, gender, ethnicity, disabilities or circumstances.

## Benefits

It is often thought that addressing the needs of everyone in new or existing buildings will always lead to increased costs. However, appropriate consideration of the issues at the design stage accompanied by good management in use can deliver accessible and inclusive solutions at little or no extra cost. Buildings that are designed to be inclusive from the outset can also avoid the need for subsequent costly, and perhaps unsightly, alterations.

Elements of the built of the environment, such as buildings, pedestrian areas or transport interchanges, are with us for a long time, but their life is dynamic, not static, and there are often opportunities to improve accessibility. Floor and wall finishes, lighting, decoration and features, fixtures and fittings, and so on, may change several times throughout the life of a building. Linking improvements to maintenance or refurbishment programmes can help ensure that the work is done cost-effectively.



**Figure 1.2** Good, clear signs help everyone.

There are also financial and social benefits to be had from designing inclusively. There are 10.8 million people aged 65 or over in the UK, and this number is projected to rise by nearly 50% in the next 20 years to over 16 million. The population over 75 is projected to double in the next 30 years. The number of people over 85 in the UK is predicted to double in the next 20 years and nearly treble in the next 30 (Age UK). Increases in the state pension age and the removal of compulsory retirement ages will almost certainly see an increase in the number of people over the age of 65 remaining in the work place.

Older people with higher disposable incomes are becoming a more important force in the market place, and with increased opportunities in employment, the spending power of disabled people will also grow. Service providers can increase and broaden their customer base by making their services, and the buildings that house them, accessible to everyone. Employers can benefit from the skills and abilities of disabled people, by ensuring that their buildings and procedures are accessible.

Inclusive design can also take account of cultural, religious and gender diversity and in so doing promote social inclusion. The religious and cultural diversity of the UK population has increased in recent years, and current predictions suggest that this is a trend that will continue. The Equality Act 2010 does not place a duty of reasonable adjustment to address discrimination against any protected characteristic other than that of disability (see Chapter 2); however, accommodating religious and cultural diversity can affect the design, provision and management of the built environment. An example is the provision and design of sanitary and changing facilities, faith rooms and associated washing facilities. A requirement for separate sex accommodation, ergonomic considerations and women's safety issues may also form part of an inclusive design approach.

## How environments are used

In developing a strategy to ensure that user needs are appropriately addressed, it is important to consider the ways in which each area of a building or environment is used, managed and operated rather than just relying on the generic title to describe the function. A building such as a shopping centre or hospital will contain many areas with different functions, where the physical design and type of use of each area may affect the access requirements. For example, within a hospital, the factors affecting accessibility will vary considerably across circulation routes, refreshment areas, wards, operating theatres, waiting rooms and consulting rooms. Some areas will be used by

members of the public who are unfamiliar with the building and whose individual needs will be unknown, whilst other areas will be occupied by staff whose needs can be assessed and met. In some buildings visitors may have to rely upon signs for information, in others there may be reception desks where staff are able to identify particular user needs and offer assistance where required. Access may be restricted to some parts of buildings, whereas other areas may be open to everyone.

Entire buildings or parts of buildings can be classified according to use, and this approach can be helpful in understanding how to provide services in a non-discriminatory way and how to improve accessibility in ways that will suit the needs of all users.

## Use classification

There are four use classifications described here:

- **use classification 1** – complete freedom of movement;
- **use classification 2** – controlled entry/freedom of movement;
- **use classification 3** – free entry/controlled movement;
- **use classification 4** – controlled entry/controlled movement.

**Use classification 1 – complete freedom of movement** A building or area in this classification would be one where the user or visitor is free to enter, wander around, probably in no particular sequence, and leave without the need to make any contact with potential assistance points such as a reception/information desk or security point. Environments that fall into this category may include shops and shopping centres, department stores, supermarkets, some hospitals and non-fee paying museums and exhibitions.

An environment in this use classification is likely to contain long travel distances. The provision of seating, preferably where visitors do not have to pay to sit down as in a café, will be helpful to many people, especially older people and disabled people.

In environments that allow users complete freedom of movement, information will need to be provided remotely, usually by signs. The provision of an information point or help desk may assist some visitors but will not

remove the need to provide information remotely, as it cannot be assumed that all visitors will make use of it.

Environments that allow the type of freedom of movement described here are likely to be the most difficult to design and manage to ensure appropriate levels of accessibility for all users. There may be a wide range of needs to be met and little opportunity to provide specific assistance. In such environments the provision of good environmental services (lighting, acoustics, visual contrast, etc.), appropriate communication facilities (signs, audible and visual information systems, etc.) and ongoing staff training are essential.

Many people, but especially older people and those with hearing impairments, dislike environments with poor acoustical qualities, or ones that contain equipment with loud background noises.



**Figure 1.3** A good level of accessibility can benefit a wide range of people, including people with disabilities.