Signage Guidance for Outdoor Access

A Guide to Good Practice

Signage Guidance for Outdoor Access

Contents

Introduction

Signage is one of the most important tools for the management of responsible access. It is first and foremost a simple and effective method of communication between the people who own or manage land and water and those who take access on it. Signs offer an obvious welcome and have a significant role to play in promoting paths and encouraging and supporting people in their use. This will help everyone to take access responsibly and allow land and access managers to carry out operations safely and provide opportunities for everyone to enjoy the outdoors.

Outdoor access signage falls into two categories: advisory and directional and this publication will look at both categories. Advisory signage is about letting people know what to expect, providing information about factors affecting access or guidance on responsible behaviour. Directional signage is about route finding and covers any sign which helps people find their way to, or along, a path or route.

The Land Reform (Scotland) Act 2003 (the Act) has fundamentally altered the legal basis for outdoor access in Scotland. Everyone now has access rights to most land and inland water, subject to their responsible behaviour. Land managers also have a duty under the Act to use and manage land responsibly in relation to access rights. To reflect and support these new arrangements, important, but subtle, changes are required in how access and land managers communicate with users. The introduction of the Scottish Outdoor Access Code (the Code) sets out guidance which provides advice on responsible behaviour by both users and access and land managers.

People may exercise their access rights in parks, greenspaces and the wider countryside, for recreational or for everyday functional purposes such as getting to work, school or for health walks. The new approach promoted by this guidance asks land and access managers to think afresh about what information users need to make informed choices, and how best to communicate this through signs and other means. It is the quality of the communication that will be a key factor in the successful management of outdoor access, and in realising the benefits of the access arrangements brought into effect by the Act.

This guidance covers all aspects of outdoor access signage and is aimed at access staff, countryside rangers, land managers, community groups (including health walk co-ordinators) and anybody involved in path or site management. It supersedes and greatly expands on the advice given in the Advisory Signage Guide published by Paths for All and Scottish Natural Heritage (SNH) in June 2007.

This guide is divided into sections covering the different aspects of signage as follows:

Chapter 1 – general principles of signage and setting the legislative context to which signage should apply

Chapter 2 – when to use signage and how to plan and ensure signs are fit for purpose

Chapter 3 – advisory signage for hazard management and promotion of responsible access

Chapter 4 – directional finger posts, waymarking and orientation panels

Chapter 5 – further information including organisational contacts

Chapter 6 – information sheets which outline text format and layout, use of materials, standard sign designs and examples of hazard warning signs.

Chapter 1

Signage Principles

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Chapter 1 Signage Principles

This chapter introduces general principles which apply to all aspects of outdoor access signage and describes the influence of key legislation. It is a good starting point for anybody who is considering the use of signs whether in an urban or rural environment.

1.1 The role of signage in outdoor access promotion and management

Signage has a pivotal role in promoting the benefits of path use and encouraging participation in the outdoors as well as enabling land and access managers to positively manage access. The Scottish Government's strategic objectives (www.scotland.gov.uk/About/purposestratobjs) of increasing health and wellbeing, promoting active travel and encouraging greater awareness of our environment require new and innovative ways of promotion in order to reach all sectors of society. Signage has a major role to play in achieving these objectives.

Good signage is an important tool that helps people to behave in a responsible manner. Irresponsible behaviour often results from a lack of knowledge or because information about preferred routes or behaviour is not readily available. The key challenges are to be able to communicate successfully with a wide and diverse range of audiences, to educate and to change behaviour. In the past, attempts have been made to simply exclude unwanted audiences, often with limited impact on the people concerned whilst unnecessarily restricting many legitimate and responsible users. Under the Act we are asked to find more successful and less restrictive solutions and signage has a substantial role to play.

Signage is one of the most obvious ways of promoting opportunities for outdoor access. It can raise awareness of the existence of individual paths or networks within urban and rural environments, presenting them in a positive and welcoming light and encouraging access to be taken on these routes. It is one of the most effective ways of giving people the confidence to enjoy their local area. Positive and welcoming signage is also a valuable tool for land and access management. Directional and advisory signage encourages access users to use paths and routes preferred by land and access managers, for example, guiding access users away from sensitive areas, or from places where there is concern for their safety; although people will not be obliged to use them in most cases.

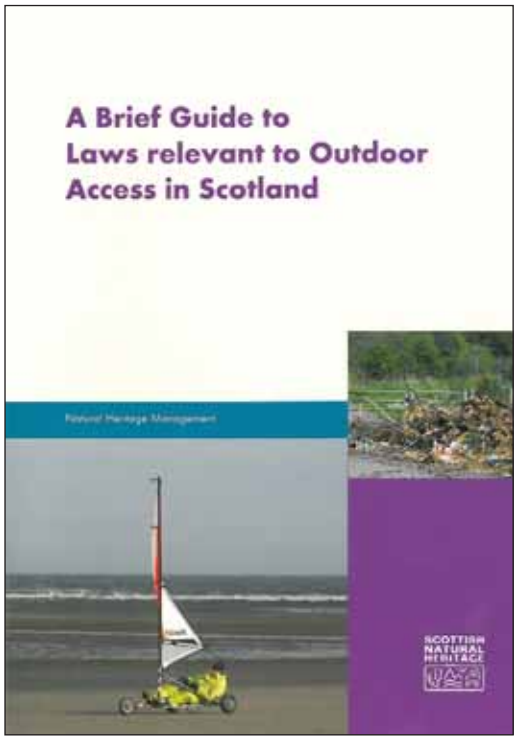
Signs usually offer limited space for conveying information and it is important to recognise their constraints when used alone, particularly as promotional tools. Advisory signage can require skilled writing, design and careful onsite placement to make it effective. It should be seen as one of the tools in the toolkit of communication methods (for example leaflets, events, information boards) for successful access promotion and management. This needs careful planning and the time required to do this should not be underestimated. The Paths for All and SNH publication 'Promoting Paths for People - a Marketing Guide and Toolkit' covers outdoor access promotion in more detail: www.pathsforall.org.uk/resources

1.2 Legal context

When considering signage, relevant legislation must be taken into account. The most relevant legislation is briefly outlined below. For a fuller guide refer to the SNH document 'A Brief Guide to Laws relevant to Outdoor Access in Scotland': www.snh.org.uk

Land Reform (Scotland) Act 2003 and the Scottish Outdoor Access Code

Under the Act land covered by access rights, including paths, is available to all responsible non-motorised use including a vehicle or vessel which has been constructed or adapted for use by a person who has a disability. The most important change since the Act is the removal of any segregation between different user groups. Before the Act a pedestrian Right of Way may have been signed for walkers only and barriers put up to exclude horses and cyclists. Now, where access rights apply, signs must be compliant with the Act and Code - i.e. they must not deter or discourage legitimate responsible access (s.14 of the Act), and as defined by the Code. Inappropriate wording or symbols can act as a barrier to people exercising their access rights. For example, excluding horse access by using a sign with a horse symbol with a red circle and diagonal line through it, or discouraging cyclists by using the word 'footpath', is not consistent with the ethos of the Act or the Code - see 'Sign symbols' within Section 3.2.



With this in mind consideration should be given to the following:

- Use the word 'path', 'trail', 'way' or 'route' rather than 'footpath', 'cyclepath', 'bridlepath' or 'walkway'
- Avoid, where possible, 'private', 'keep out' and 'no entry' (see also Section 3.5 'Supporting land management operations')
- Where restrictions on motor vehicles are required use wording such as 'no unauthorised vehicles' or 'no motorcycles'.

Some exceptions: Shared use in a road corridor

- Footways (as described in traffic legislation) adjacent to roads may be for pedestrians only (including people using aids to mobility such as electric scooters) and a pedestrian symbol may be appropriate for reinforcement
- Road sign legislation demands that footways designated as combined pedestrian and cycle routes use a pedestrian and bicycle symbol
- Details of symbols, text, colours and designs are available from the local Roads Authority. The Sustrans publication 'National Cycle Network Guidelines and Practical Details' also has a comprehensive guide to on-road signage for non-motorised use: www.sustrans.org.uk

Promoting understanding of the Code

Signs can help people take informed decisions to make the most of their outdoor experiences. The Code stresses that people:

- Should be responsible for their actions
- Respect the interests of others
- Care for the environment.

Advisory signage should contain information that helps people to follow these principles.

Use the content of the Code to help create signs, and take quotes from it. Be careful not to take text out of context or to inadvertently change the meaning of any quote. Further advice can be found in 'Writing Positively and using the Access Code brand' on the website: www.outdooraccess-scotland.com

Using the Scottish Outdoor Access Code branding

The Code branding is a very useful promotion tool and its use is encouraged to endorse any Code compliant product or publication.

Visit www.outdooraccess-scotland.com for further details.

Note that the branding is NOT recommended for use on directional signage as people are not usually required to follow signed routes under the Land Reform (Scotland) Act 2003.

The Disability Discrimination Act 2005 (DDA)

The DDA demands that managers of access do not unjustifiably discriminate against those who are disabled or otherwise have a mobility or sensory impairment. The Disability Equality Duty (DED) was created as part of the DDA and places a duty on all public bodies or their agents to provide for disabled people. Signage should be as readable and accessible as possible. Section 3.4 'Signage for accessibility' provides further details. For more information on DDA and DED see the Scottish Disability Equality Forum: www.sdef.org.uk and for managing inclusive access see Fieldfare Trust: www.fieldfare.org.uk

Health & Safety at Work Act 1974

The Land Reform (Scotland) Act 2003 conveys no extra liabilities on land managers and stresses that access is taken at the users own risk. However, land managers have obligations under the Health and Safety at Work Act 1974 to carry out their day-to-day business operations in a manner that ensures the general public are not exposed to risks, so far as is reasonably practicable.

Landbased industries such as construction, agriculture and forestry have specific health and safety legislation applicable to them and will require specific safety signage. Other legislation relating to, for example, contaminated land or industrial processes may also have specific guidance or duties in relation to health and safety; it is always important to check. For further information regarding health and safety legislation look at the Health and Safety Executive's website: www.hse.gov.uk

British Standards relating to Health & Safety Signage

Hazard warning signs must comply with British Standard (BS) 5499 'Graphical Symbols & Signs' and the Health and Safety (Safety Signs and Signals) Regulations 1996. These regulations have brought into force the European equivalent, EC Safety Signs Directive (92/58/EEC) on the provision and use of safety signs at work. BS 5499-1 requires that new safety signs comply with shape, colours and layout specifications. BS 5499-5 deals with signage with specific safety meanings. For example, a hazard warning sign should be a triangle with black border and symbol with at least 50% yellow background area (see Information Sheet 6.11).

The use of pictorial symbols on all safety signs are tested to ensure that they communicate their intended message effectively. The design and creation of symbols intended for safety signs have to comply with BS 5499-6. If you are planning to make a new symbol for a specific hazard, which is not already available, you must conform to the above standard. Also consider approaching a safety sign designer to help you with this task. There are safety sign companies who can design and manufacture to your specific requirements.

The Standards and Regulations referred to above relate to Health and Safety at Work obligations. You should consider what extra information is required and include it with the safety sign to help access users understand the nature of risk and what you want them to do to avoid the situation.

For further information on hazard warning signs and hazard management

refer to Chapter 3; and for further guidance on safety sign standards and regulations look at the Health and Safety Executive's website: www.hse.gov.uk and the British Standards Institution website: www.bsi-global.com

Occupiers Liability (Scotland) Act 1960

The legal position on liability is largely based on this 1960 Act and common law. Under the 1960 Act, an occupier has a duty to take reasonable care to make sure that people entering the land that is under their control will not suffer injuries or damages arising through negligence. For any case to succeed under the 1960 Act, it must be shown that:

- The person who allegedly caused the injury or damage owed a duty of care to the person who was injured or whose property was damaged
- This duty was breached by a failure to take reasonable care
- The failure caused the injury or damage.

The Land Reform (Scotland) Act 2003 states that: 'The extent of the duty of care owed by an occupier of land to another person present on the land is not …affected by this Part of this Act or by its operation' (s. 5.2 of the Act). The only exception to this is where a Path Order has been made, which would then involve the access authority.

The existing legal position established under the 1960 Act therefore remains unchanged. Considerations will continue to include the reasonable duty of care, the nature of any dangers, the characteristics of the visitor, willingly accepted risk, etc, as explained in the Guide referred to below. One of the

Code's three central principles is to 'Take responsibility for your own actions' and the Code itself provides substantial information about what this means in practice. The provisions of the Code may be a consideration when assessing issues of care and liability relating to the exercise of access rights.

For details and practical examples of the Occupiers Liability (Scotland) Act 1960, refer to the SNH publication 'A Brief Guide to Occupiers' Legal Liabilities in Scotland in relation to Public Outdoor Access' available from the Outdoor Access website: www.outdooraccess-scotland.com

1.3 Communication essentials

A new beginning

Since the Act, communication with access users is more likely to be about conveying information on which people can base their own decisions, rather than directing a particular course of action. This approach requires some fresh thinking about the information people require to make informed choices and how best to communicate with them through symbols, maps, leaflets, websites and signage.

Access authorities and land managers have developed diverse approaches to signage that have reflected local situations and sometimes produced innovative solutions. From a user's perspective this diversity of signs can add to the experience of being in a particular location - a 'sense of place'. Conversely, the range and variety of formats can be confusing when travelling between different areas or land managed by different managers.

Over the next few years many access authorities and other access providers will be signing new paths and reviewing existing signs for compliance under the Act. Because of this, the signposting and promotion of core paths across the whole of Scotland presents a unique opportunity to address some of these issues. Locally distinct signs in terms of design and material are to be celebrated, however, the experience of access takers can be made less frustrating and more enjoyable by ensuring the information that signs display is consistent. We hope that by following the advice in this guidance document, people who manage and promote access can help to make the outdoors more accessible, welcoming and better understood.

Quality counts

The quality of communication between land managers and access users is a key factor in the success of initiatives to encourage outdoor access, protect the environment and facilitate safe land management operations.

New technology is revolutionising the way we communicate and methods are becoming increasingly sophisticated. This does not mean that there is no future for signage, as often the simple approach is the most effective, but it does need to be done well to be effective.

Points to consider:

- The audience - who are they, what do they want or need to know and how best can that information be provided?
- Think about the key message(s) to be communicated
- Think of the ways to communicate this message to your audience and make a judgement as to whether or not signage is the most appropriate medium. Is a sign required at all?
- Think through who, what, why, when, how, where, to make sure you have not forgotten anything crucial to your message
- Capture people's attention - incorporate signage into other features such as seating and sculpture. Once you have their attention it is much easier to communicate your message
- Make signs positive - people tend to respond far better to positive, polite and friendly messages

- Humour (cartoons, slang etc) can be really effective but must be used with care. It has to be audience appropriate as it has the potential to offend or be misunderstood
- Use standard safety signs for health and safety issues, if appropriate (see Chapter 3)
- Consider people who cannot read (or cannot read English), people of all ages or those with a sensory impairment
- Avoid lists of do's and do nots - it may not be Code compliant and some people do not like being told what they can or cannot do and so may simply ignore the sign. Try to explain the reasons why people are being asked to behave in a certain way
- Keep it simple - people generally do not want to spend time reading through reams of information. Make messages short, simple and concise - they will be far more effective
- Locate signs where your target audience can not miss them. Pinch points (e.g. bridges or gates) or places where people congregate make signs more difficult to miss. Avoid places where cars or vegetation can block the view
- Some people will never comply with signage. Consider other communication methods or media, either on their own or in combination with signage. The alternative methods or media may help to reinforce the message that the signage is trying to convey.

For further guidance on using communication and writing positively to encourage responsible and shared use of the outdoors see SNH outdoor access website: www.outdooraccess-scotland.com

Always choose the most effective means of communication to convey your message. This will vary and several methods will be required. As an example, consider a popular path which has been closed by a landslip. To communicate the information to as many people as possible use a variety of media. For instance, a news item in the local paper or on the radio, a notice in the local visitor centre or library and on the path promotion website. Temporary signage, if required, should be installed at the main access points including any diversions, and finally immediately before the hazardous area.

These communication essentials apply to advisory signage as much as directional signage. The following chapters cover the specifics of advisory and directional signage but in all cases we will refer to these fundamental communication essentials.

Information or interpretation?

There is an important difference between interpretation and information, but both should be based on sound communication principles. Information sticks to the facts, but interpretation reveals meanings and relationships. Interpretation should:

- **Provoke** curiosity and interest
- **Relate** to the everyday experiences of your audience
- **Reveal** a memorable message.

Interpretation should add to a visitor's experience, helping people to a new understanding. Above all, it should make people think. This might sometimes mean being controversial, but if you send your visitors away buzzing with discussion about your place, that's no bad thing! Some signs will need an interpretive approach to be successful, others may not. Whatever sort of sign you need, thinking 'interpretively' from the start can really help get your message across.

For more information:

The Scottish Interpretation Network: 'A Sense of Place: An interpretive planning handbook' Tourism & Environment Forum (1997): www.scotinterpnet.org.uk

Interpret Scotland: 'What have we got and is it any good?' Highland Interpretive Strategy Project (1999): www.interpretscotland.org.uk

SNH Policy Framework on Interpretation 'Provoke, Relate, Reveal' (2001): www.snh.org.uk

1.4 General principles of signage

There are three general principles which aim to encourage good practice in outdoor access signage:

Take the right approach - will a sign be effective?

'Do you need a sign?' should be the first question. Signage is only one of many ways of communicating with access users and can be an effective technique for delivering simple messages, however, other forms of communication, such as maps, leaflets, websites and user group networks are essential to conveying more complex messages. In order that the message is understood, it may need to be delivered by a combination of communication techniques. Section 1.3 'Communication essentials' provides further advice.

Sign selectively

It is important to get a message across but also to avoid over signing. An excess of signs will create unnecessary clutter and can be intrusive, confusing and may dilute your message, whilst also creating a maintenance burden. Use signage if it is the most effective way of communicating a message. If several signs are needed in one location, rationalise their design and installation so that they are consistent and coherent. If possible, work in partnership with others to reduce the number of signs and share costs.

Make messages positive and informative

People want to feel welcome in the outdoors and respond best to helpful information. Make wording polite and friendly, use humour where appropriate and inform people of reasons for, and duration of, temporary closures, diversions and other problems which may affect an area or path.

Humour is a great way of getting people to read a message, however, use with care as it can be confusing or misinterpreted if too colloquial.

1.5 Sign types

Signs can fulfil a variety of purposes. For clarity we have classified signs into two categories: advisory and directional.

Advisory signage is about letting people know what to expect. It might provide information on a route or area of land, or could describe physical barriers which affect accessibility, provide guidance on responsible access or inform users of specific high risk land management operations such as forestry activities, crop spraying, slurry spreading or a bull in the field. Advisory signage is covered in Chapter 3.

Directional signage is about route finding. It covers any sign which helps users to find their way to or along a path or route. The three basic types of directional signage are finger posts, waymarkers and orientation panels. Chapter 4 covers directional signage.

Chapter 2

Planning for Signage

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Chapter 2 Planning for Signage

Planning can ensure signs will be most effective. This chapter outlines when and how signage can be used and also covers some basic design issues which should be considered - good planning is the key.

> A fit for purpose sign:
> gives the right message at the right place

2.1 Know your audience

The key to good communication is to know and understand the audience that you wish to address. Appreciating their needs and what motivates and interests them will help to ensure that signage is appropriate, targeted and, most importantly, effective.

It is essential to be sure of your audience and be clear what messages you are trying to communicate. This may be obvious but, if not, market research may help. For example, a sign about dog fouling needs to get the message across to dog owners and not canoeists. There are some simple techniques for this, which can be found in the Paths for All and SNH 'Promoting Paths for People - a Marketing Guide and Toolkit', available from the website: www.pathsforall.org.uk/resources

Access users

Access users are the key audience but their needs can vary. They include walkers, cyclists, horse riders and canoeists. However, many other forms of non-motorised users exist including horse drawn carriages, paragliders, climbers, skiers, windsurfers and dinghy sailors. These people may be exercising their access rights for recreational or for everyday functional purposes such as health walks or routes to work or school. When considering signage within either an urban or rural setting, the abilities of all users should be considered.

Visitors to Scotland also are a significant audience, particularly in scenic, rural areas and in and around popular cultural, historical and commercial sites. Therefore, think about language and cultural differences when planning signage in those areas.

2.2 Management requirements for signage

Land and access managers

Signage can play a valuable role in integrating access with land management practices as well as helping to fulfil duties under health and safety legislation. Signs are often permanent fixtures, but in terms of land management operations, temporary signage, used sparingly and only when necessary, has an important role to play. However, to be effective temporary signs need to be removed once the activity has been completed. The principles of 'minimum area' for the 'minimum amount of time' should be applied. Section 3.5 'Supporting land management operations' covers issues specific to land management and signage.

Signs, whether permanent or temporary can help to:

- Enable day-to-day activities to continue without disruption or hindrance
- Integrate access with land management operations across an area
- Minimise risk to all users exercising responsible access, or, if required, limit access during short periods of extraordinary works
- Enable all users to take appropriate action for their own safety
- Convey accurate up-to-date information relating to the activity being carried out
- Communicate the Code to users - the contents of the Code can help to create advisory information signs, but should be used in context
- Identify 'at risk' areas, and highlight disruption, temporary closures and re-routed routes
- Enable effective communication between access user groups and land managers, thereby limiting conflict.

The SNH publication 'Signs Guidance for Farmers and other Land Managers' provides the most up-to-date information for advisory signage provision for land management operations. This guide is available free and can be downloaded from: www.outdooraccess-scotland.com

For specific signage advice relating to particular land and water based recreational activities or land management operations, contact the relevant representative organisation - see Section 5.1.

2.3 How many signs and where to put them

A balance must be struck between having sufficient signage to advise and inform people as well as avoiding cluttering a place up with signs. However, the ideal frequency and style of signage can vary greatly between one path and another, depending on the situation. Similarly, when considering the general right of access to land or water, it may only be desirable to sign key access points, the need for which will be very site specific.

For these reasons develop a flexible approach about when and how to use signs (directional or advisory; permanent or temporary). The reader is encouraged to assess their own requirements for signage using the good practice guidance in this publication - also see Section 3.5 ‘Supporting land management operations’.

Signs in rural areas

To be effective, signage needs to be clearly readable and visible. In some situations, particularly in rural environments, it is desirable to avoid signs that are intrusive or out of character. These conflicting requirements require careful consideration. Signage can play an important role in land management, encouraging users to follow key routes and use specific access points to reduce impact on more sensitive areas, or during farming or forestry operations. It may therefore be necessary to accept the visual intrusion of signage in order that the special qualities can be preserved. Careful choice of design and materials can also help to lessen the visual impact of a sign. Refer to Section 2.7 ‘Different signs for different places’ and Information Sheet 6.12 for more details on the use of materials.

Signs in urban areas

The same fundamental requirements are needed for signage within an urban environment as for rural areas i.e. signs that are clearly readable, visible, and in character with their surroundings. Urban signage has a key role in conveying directional information particularly for functional everyday access. In addition, the often convoluted nature of short paths and routes and their multitude of connections, means that urban signage has to be sufficient to meet the diverse aspirations of both functional and recreational users. This can be a challenge, requiring careful thought and planning. Ease of maintenance, materials and design are all key elements that need careful consideration at the planning stage. Also see 'Road crossings' within Section 2.7.

Tackling antisocial behaviour

Tackling antisocial behaviour is a great challenge and simple solutions rarely exist. In the majority of situations signage alone will do little to change people's behaviour. Effective communication with the people involved in antisocial behaviour requires careful thought and sometimes innovative approaches. Trying to find out what motivates them to behave in the way they do is the first step to take. Face to face contact and positive approaches to these problems have been proven to be effective. Attempts at regulation and enforcement may at best simply push the problem elsewhere and at worst increase the problem as perpetrators respond to a challenge. However, sometimes this is the only option and the police may need to be involved. For further guidance on influencing behaviour and managing people see SNH outdoor access website: www.outdooraccess-scotland.com

Getting the message across – more signs now, fewer signs later?

Signage can and will play a key role in promoting understanding of the Code. As the Act is still a relatively new piece of legislation, more signage which reinforces the key Code messages may be desirable during the initial years. As understanding grows signs could be reduced or removed. Therefore, it should be accepted that signage in the short term, although seen as possibly intrusive and contrary to the principle of selective signing, may result in reduced signage in the future.

2.4 Making a plan: signage strategy and local signage plans

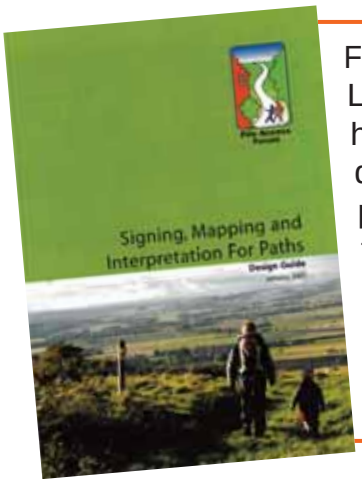
There are two levels of sign planning that will help you to develop a co-ordinated and coherent approach. Typically a signage strategy will cover a large area such as an access authority and will involve discussion between interested parties, and working in partnership with appropriate agencies, to agree how the needs and aspirations are to be accommodated whilst providing users with signage that makes sense and is easy to use across the area. A signage strategy will enable you to agree ground rules, upon which local plans can develop.

A local signage plan will cover a smaller area such as a Country Park, an estate, path network or community project; and should help reasoned judgements to be made on local implementation - what signs are suitable and where to place them. It should be possible to produce a list of sign specifications for manufacture from your local signage plan.

Therefore, it is not necessary for every land manager to have their own plan, but might be helpful for those managing larger areas such as an estate; but it is important that they are consulted during the development of a local signage plan.

Points to consider when developing a signage strategy / local signage plan:

- Current situation - what sort of signs are already in use and who are the key stakeholders
- How and where signage is used including wild land issues where relevant
- Key features in an area i.e. visitor attractions such as view points, historic / archaeological sites or facilities such as shops, public transport hubs, schools etc
- Standard designs may be appropriate so that anyone planning signage in an area has a template to guide them. The use of local designs and materials should be accommodated, so do not make this too prescriptive
- Use of logos of funders and organisations, as well as route logos
- Linking local path networks to national routes (such as the National Cycle Network or Long Distance Routes)
- An action plan to get the work done
- How you might deal with selected promoted routes
- Monitoring and evaluation.



Fife Council and its Local Access Forum have produced a design guide which provides guidance on the use of logos, directional signage, design and advisory signage wording and usage.

Logos and branding

The use of logos on signage can create a great deal of debate. Logos are useful on long distance routes or for path networks where particular routes are promoted. They help users to keep on the correct route as well as providing a brand identity to assist with marketing and promotion. Often funders and access providers wish to display their logos on signage in order to promote their contribution or involvement with a specific route or path network. This should be resisted, as it may confuse or detract from both the readability and usability of the sign. Consider separate information leaflets or a section on the area's website as being a better place for this information.

Appropriate wording

A signage strategy is a good place to introduce consistent wording. Rather than terms such as footpath, walkway or cycleway which are not within the spirit of the Act; the word 'Path', 'Track', 'Trail', 'Route' or 'Way' are advised. 'Public Path' is not necessary as all promoted paths will be covered by either access rights, an access agreement (for example, through land where access rights do not apply) or a Right of Way. It is generally accepted that Rights of Way can be signed as 'Right of Way' as this is a specific type of path with a legal definition and a historical reference. Similarly, there are many historic paths across Scotland with their own names and use of these names should be celebrated, for example, Jock's Road. It is common for local path networks to name particular routes in the network as part of their promotion. In this case all that is required is that the above considerations should be observed. For example 'Waterfall Path' rather than 'Waterfall Walk'. This may seem unnecessarily pedantic, but, in terms of the spirit of the Act and promotion of the Code, it is a subtle, but crucial, reminder that, where access rights apply, all responsible non-motorised use is appropriate.

For further guidance on appropriate wording and writing positively to encourage responsible and shared use of the outdoors see SNH outdoor access website: www.outdooraccess-scotland.com

2.5 Consultation: who should you talk to

Consultation is a key part of sign planning. It is essential to consult users, potential users, access authorities, land managers, public, private and voluntary organisations. Consultation will help to deliver the best results and limit potential conflict between interested parties.

Identifying users and determining their needs

To avoid unnecessary signage and to maximise its use, it is important to understand who the users are, why they want to be there and how they will be using the area, e.g. walking or cycling, and what information they need - see Section 2.1. A wealth of information can be obtained by simply surveying the people who use the area. However, those who do not currently take access, or do not take access responsibly, should also be targeted as part of the consultation to find out what would help change their behaviour or encourage them to use the area.

For further information refer to the Paths for All and SNH 'Promoting Paths for People - a Marketing Guide and Toolkit', available from the website: www.pathsforall.org.uk/resources

Paths to Health – establishing walking projects across Scotland

Paths to Health promote walking for health across Scotland and offer proven approaches to influencing people's behaviour through community, workplace and health care settings.

Many health walking projects have been the primer for establishing a signed local path network. The Gorbals Healthy Living Initiative in Glasgow worked with the local community to sign five routes and develop a leaflet with the aim of 'repopulating the streets'. A programme of volunteer led health walks introduced locals to walking opportunities on their doorstop. After a period of massive regeneration, options for walking had changed as old routes were closed and new routes introduced. Living Streets Scotland carried out a 'street audit' that helped to develop the maps and signage. Many parts of the Gorbals were not used by people due to fears about personal safety. The Community Police and Community Safety Partnership worked with the team to ensure that the routes chosen were suitable. The signs were erected on lamp posts and colour coded. The walks map highlighted points of historical interest, as well as religious centres and key transport links. The St Francis Centre, a local community 'hub', was included in most routes. The map used in the walk leaflet was the same as a 'community map' designed to introduce new residents to the wealth of community activity in the area. By developing a range of maps for one community using the same base map and graphics, residents were able to build confidence in using the map to explore their own community. For further details see: www.pathsforall.org.uk

As with any such signing project, the access authority should be consulted at an early stage. For access contact details: www.pathsforall.org.uk/outdooraccess/contacts.asp

Local knowledge

Local people will know their own area best and can be a useful source of information, such as where signs are required, which areas may be prone to vandalism and the location of hazards. In particular, land managers will know their land intimately and are a great source of information when planning signage. Consultation enables people to take ownership of the signing process and can help to avoid conflicts of interest, as well as adding value to the project.

Planning permission

Many signs can be installed without the need for planning permission. However, some signs may require consent before they can be erected. If you are unsure whether planning permission is necessary, contact the access authority. Arrange to have an informal discussion with an Access Officer or Planning Officer at the earliest opportunity. They will advise you whether permission is required, and what needs to be done to obtain the necessary consent to install the signage.

Local Access Forum

Local Access Forums should be involved in the development of a signage strategy or local signage plan. They may also be involved if signage is being considered to address an access issue, for which they have been asked for advice.

Disability representation

Local Access Panels exist throughout Scotland, representing the interests of disabled people. Local Access Panels advocate the removal of physical barriers and the promotion of equal access to the built environment and the outdoors. The Access Panel may also be consulted and can help to plan signage. The Scottish Disability Equality Forum (SDEF) will have contact details of the nearest Access Panel: www.sdef.org.uk

Roads authorities

Signage installed within a road corridor, either at the start of a path or where the path runs parallel to the road, should be located in accordance with road regulations. Installation approval must be sought from the relevant roads authority.

The standard steel finger post sign described in Information Sheet 6.4 is suitable for use in a road corridor. It is possible to use timber signs if they are located on a verge rather than on or adjacent to a footway or carriageway, but this is subject to approval by the local roads authority.

The Road Traffic Regulation Act 1984: www.statutelaw.gov.uk/ Home.aspx

2.6 What should signs look like: fonts, colours and language

It is essential that a sign is legible to users. Text style and size, the contrast between text and background, language and design are crucial factors for a sign to be effective.

Can everyone read your sign?

Consider who will be reading the sign and from where. A sign at a main access point will be read by stationary people who are fairly close, whereas a waymarker may need to be read by a cyclist or jogger from a distance and moving at speed. The Fieldfare Trust 'Countryside for All' Good Practice Guide provides information on wording and text design in order to maximise the accessibility of signs: www.fieldfare.org.uk

For further good design guidance for making signage accessible and for other accessibility methods for blind or partially sighted people, refer to the Royal National Institute of Blind People (RNIB) website: www.rnib.org.uk

Font style and size

Choosing the correct font style, layout and size is crucial to ensure a sign is readable.

Points to consider:

- A sans serif font is advised and preferably Arial. This one is the most readable by people with visual impairments and learning difficulties
  Arial
- Use mixed case (sentence case)
- AVOID USE OF CAPITALS IN CONTINUOUS TEXT
  (People will think you are shouting!)
- Do not cram lettering
- D o n o t s t r e t c h l e t t e r i n g
- Ensure adequate line spacing
- Justify text to left typically or right if a sign layout demands it. Do not justify text across a page, the uneven word spacing reduces readability
- Do not place text over photos or pictures. Insert in a plain box instead
- For a standard finger post blade at suitable height up to 2.5 metres, font text size should be 'Path' 150 point and destination and distance 100 point
- For information signs, hazard warning signs and orientation panels, font text size should be 20 point minimum.

Colour and contrast

Contrast between the letter colour and the background of the sign is a significant factor in making the information clearly visible.

White lettering against a dark green or dark brown background gives good contrast

Black Lettering against a dark background gives poor contrast – here is the same sentence again to illustrate this:

Black lettering against a dark background provides poor contrast

Black lettering, symbol and border against a standard yellow background gives good contrast for hazard warning signs:

Black lettering, symbol and border against a standard yellow background gives good contrast for hazard warning signs

If different colours are to be used on a sign ensure they will not confuse those who are colour blind - avoid using the following colour combinations:

- red/yellow/green
- red/black
- blue/green/purple.

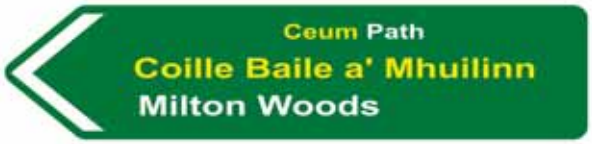
Language

Most signs in Scotland are likely to be in English. Use plain English with correct grammar, except where doing something different will help you to make a point. Choose wording which is precise and clear to avoid any possible confusion. Slang or colloquialisms can add to the local character of a sign but may confuse visitors, so use with care (particularly important for hazard warning signs).

Other languages – The use of other languages may be appropriate depending on the message and location of the sign, although care must be taken to avoid multi-lingual signs becoming cluttered and less easy to read. An understanding of who will be visiting an area and what information they need will help to decide whether other languages may be required.

It is advisable to seek advice from the access authority, and relevant service providers to ensure accurate language wording. Equality Scotland's multilingual website is a useful resource for those considering use of other languages: www.equalityscotland.com

Gaelic – There is an increasing desire to use gaelic in everyday communications, particularly in the north and west of Scotland. When planning signage it is advisable to seek out access authority, and relevant service providers, policies on the use of Gaelic on signage, in order to embrace local or regional standards.



For example, further information: Highland Council Gaelic Language Plan: www.highland.gov.uk

Braille – Providing braille needs some consideration. People need to be alerted to the presence of braille signs or they are unlikely to find them. Tactile surfaces or other clear indicators may be needed. The RNIB can provide further guidance on the use of braille: www.rnib.org.uk. Also refer to the Fieldfare Trust 'Countryside for All' guide: www.fieldfare.org.uk

Design

There are a diverse range of design options for signage. In many cases, simple solutions using traditional designs will meet most people's requirements. However, signage has been incorporated into features such as gates or fences to make them eye-catching, unique designs. The information sheets in Chapter 6 give details of standard designs which will suit a range of circumstances and environments.

Key points to consider are:

Robustness – A sign may need to be strong enough to withstand vandalism and people leaning on them. It must be correctly installed so that there is no danger of it falling on somebody. In some cases a sign may need to withstand the effects of livestock (who may use a sign as a handy scratching post) as well as the effect of wind, rain and snow.

Durability – A permanent sign may need to last for many years and still be legible. However, a temporary sign may only need to last a few days. Careful choice of materials, surface treatments and location will ensure a sign lasts as long as required whilst being good value. Section 2.7 'Different signs for different places' and Information Sheet 6.12 give further guidance on the choice of materials.

Easily replaceable – If signs do get damaged, then the simpler they are to replace the lower the maintenance cost. For large artistic designs with inset panels, make the panels simple to remove and replace. Either have a stock of replacement panels or an arrangement with the printer to enable new panels to be produced quickly. It is worth considering placing a bulk order for extra panels, which should attract a discount, thereby ensuring a saving in the long term.

2.7 Different signs for different places

The look of signs often creates more debate than the functionality. This is not surprising, considering that signs are often placed in attractive open space. The key phrase is ‘fit for purpose’. In the main, sign materials will probably be a reflection of their location and environment. However, this may not necessarily be the case, for example where signs may have been carefully chosen to be at odds with the place and stand out. It is the considered decision making that is important, not always making signs fit.

This section outlines the materials used to make signs - timber, metal, stone and a variety of forms of plastic. Temporary signs and the issue of road crossings are also covered. Information Sheet 6.12 highlights the strengths and weaknesses of some common materials and helps to inform decisions on suitability for main setting.

Bold artistic sign - designed to stand out

Artistic designs

Some signs have designs which are a feature as well as a source of information. Use of innovative designs and materials can make a sign more noticeable and, therefore, make the message it is trying to communicate stronger. People will be drawn to the feature and will be more likely to read the information.

Materials

Timber

Timber is often seen as the 'default' material for signage in rural areas. In many cases this is a reasonable approach as careful selection of timber can produce robust signs suitable for most locations. A sustainable resource, timber provides a versatile solution for directional signs in particular as it is a workable material that can be used on its own or in combination with other man-made materials. However, it can be a costly option in the long term because of the need for regular maintenance.

Non-treated or treated softwood and hardwood directional signs and information signs can be routed with lettering, arrow and disc recesses. Routed lettering and arrows are in-filled with coloured external paint for maximum clarity, whilst routed disc recesses are housed with full colour screen or digitally printed Glass Reinforced Plastic (GRP) or aluminium graphics. These materials are durable and UV resistant. Information Sheets 6.1, 6.2 and 6.3 provide more information on basic timber waymarker posts, directional waymarker posts and finger posts.

Sandblasted timber signs may provide an opportunity to engage with a number of audiences including those who are partially sighted and children. The timber is sandblasted to produce large, tactile graphics, maps and images for ease of use.

Finger post with routed text

Finger post with text on sign plate

Timber waymarker

Metal

Metal is often the material of choice for urban signs because of its robustness. The most basic metal sign comprises of a mild steel pole and an aluminium sign plate clamped or bolted on, with either galvanised or powder coated finish. High quality aluminium offers a light weight, rigid, hard wearing and cost effective solution. It can also be used to create unique and dramatic designs where a more artistic approach is required.

Whilst many consider metal to be unsuitable for rural areas, where simplicity and durability are required, metal has much to recommend it and should not be automatically dismissed. Traditionally, cast iron was used - very robust and aesthetically pleasing but expensive to manufacture, although long lasting. Directional finger posts, information and hazard warning sign text and images can be produced on aluminium panels using screen printed or self adhesive vinyl graphics and acid etching. Information Sheets 6.4, 6.8 and 6.9 provide more information on standard steel sign designs.

ScotWays steel / aluminium path sign

Cast iron sign

Metal framed interpretation panel

Stone

Using stone for a sign surround, or as a medium to carve text or images onto, can produce a sign that is attractive and functional. Stonework generally fits well in a variety of countryside or urban settings. Stone is robust, making it suitable in areas subject to vandalism. A stone sign can be integrated into another path feature such as a wall or seating area. Text and images can be carved, or sandblasted and painted on for a more elaborate design. Like timber and metal signs, printed panels can also be fixed to a stone surface.

Sandblasted stone sign

Stone orientation panel

Carved stone sign

Panel bolted onto stone

Recycled plastic

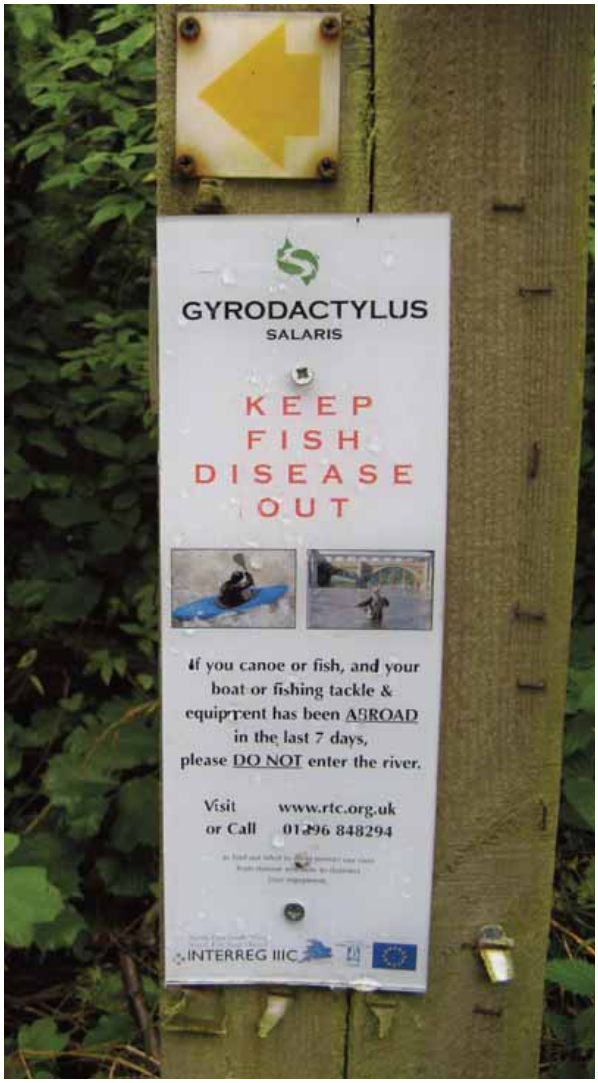
Recycled plastic, as an alternative to timber, metal and stone, is a relatively new product. It has many positive benefits which can make it a suitable material for use in the formal urban and urban fringe settings. It is also a suitable material for signs in either a rural or remote landscape settings as it is extremely durable. Like most materials, recycled plastic does have its drawbacks. For example, there have been a few situations where plastic signs have bent during hot weather. Careful choice of recycled plastic type and a robust structure are essential.

Recycled plastic, although initially quite expensive to manufacture (about three times as much as treated softwoods) in the long term can be value for money. It is a 'labour saving' material with significant reduction in costs due to reduced maintenance and replacement requirements. It can be worked in a similar way to timber, with lettering, logos and arrow and disc recesses routed and in-filled with colour external paints or housed with full colour screen or digitally printed GRP or aluminium graphics. Information Sheet 6.12 provides further information on recycled plastic.

Recycled plastic waymarker

Temporary signs

The length of time that a temporary sign is needed will determine which material to use. For very short term signs, laminated card or waterproof paper should meet requirements. Take care when fixing laminated signs making sure all nails or staples go through the plastic border only. Where the plastic has been punctured with card or paper underneath, water will enter, resulting in ink running and the sign impossible to read.



Warning sign on plastic

Where temporary signs are to be used several times over a season, or every year for a period of time, investment in a more durable material like acrylic sheet, low-cost 'corex' (corrugated PVC sheet) or GRP should be considered. These materials are strong, lightweight and weather-tight, can be screen or digitally printed on, and fixed easily to the intended support surface. They can also be easily written on using a waterproof marker pen and wiped clean with turpentine or petroleum based spirit.

A series of ten standardised land management sign templates, intended to be used as temporary advisory information signs, have been produced by SNH offering a quick and easy approach to integrating access with day-to-day land management operations. Each template is based on a specific operation for which land managers most commonly require signage: lambing, young livestock, shooting, land management, woodland management, working farmyard, fire risk, field margin, wildlife breeding site and farm traffic.

A standard template means you do not have to create a new sign for every occasion and allows for adaptation for most situations. Digital coloured PDF screen size versions and black-and-white A4 versions of these sign templates are available free and can be downloaded from: www.outdooraccess-scotland.com

The sign templates should be used in conjunction with the guidance publication: ‘Signs Guidance for Farmers and other Land Managers: using advisory signs to inform the public about your day-to-day land management operations’.

This guidance is also available from: www.outdooraccess-scotland.com

Land management sign template

National Park sign design package

The Loch Lomond and Trossachs National Park Authority have an intranet based sign design package which enables the Access Officers and Rangers to produce either temporary or more permanent advisory signs for use by the Park Authority or other land managers.

The appropriate icon and wording are selected and inserted into a computerised standard sign template.

The final sign template can either be printed and laminated for a quick cheap solution or converted to PDF for sending to a sign manufacturer for making GRP signs.

Road Crossings

There will be many occasions when a path will cross or be alongside a public road. In some places this will require additional infrastructure to ensure that they can be used safely.

There are two options for providing a safe crossing point:

- Traffic light controlled e.g. 'Pelican' or 'Toucan' crossing
- Advisory crossing

The type of crossing used depends on the road to be crossed, the number of people expected to use the crossing and the amount and speed of traffic on the road. A standard risk assessment format is used to determine the appropriate crossing type. Roads authorities will provide guidance. Good signage is a key part of a safe road crossing. As well as informing users of the presence of the road it is crucial to inform road users of the presence of non-motorised users. In the majority of cases, standard road signs must be used in these situations. There may also be a need to install a barrier or chicane to slow people down before getting to a road crossing and provide a physical structure that a person with a visual impairment can detect before venturing onto the road.

There is guidance available aimed at cycling which can be used for other users e.g. walkers or riders.

The Sustrans publication 'National Cycle Network Guidelines and Practical Details' provides useful information on the design of road crossings. Additionally, Sustrans

Information Sheet 'Direction Signing on the National Cycle Network' gives guidance about the National Cycle Network signing: www.sustrans.org.uk

Also South East Scotland Transport Partnership's (SEStran) publication 'SEStran Cycling Infrastructure: Design Guidance and Best Practice' provides guidance on road crossings: www.sestran.gov.uk

2.8 Installing signs

Having carefully decided and planned for the signage, it is important to ensure that the signs are located and installed correctly. Signs which are hidden by vegetation, point in the wrong direction or are in an unsuitable location will be ineffective, misleading or dangerous. This section outlines some of the issues and potential pitfalls.

Finding a suitable site

When planning installation it is crucial to carry out a site survey to ensure that signs are put in safely and that they are in the most effective place for users.

Points to consider:

- **Underground services** – Avoid installing on top of underground services. As well as the health and safety of those installing the signs, services may need to be dug up for repair or replacement. The location of underground services are available from the relevant companies e.g. Scottish Power, Transco, BT and the various cable phone / TV companies. Fire water hydrant valve locations, enclosed by cast metal covers embossed with the letter 'FH', are identifiable by marker plates with the letter 'H'. These can be found fixed to concrete posts, street furniture and walls. The number below the 'H' is the distance to the hydrant, measured in metres. The number above the 'H' is the nominal pipe diameter. If you are unsure about the exact location of a hydrant, contact the local fire service
- **Ground conditions** – Try to avoid deep peat or saturated ground - larger foundations are likely to be required and even then the sign may loosen and timber is more likely to rot. Though bedrock is unlikely to be encountered in most situations, avoid if the plan is to drive a signpost into the ground; but it can be ideal if you bolt onto it
- **Accessibility** – Signs with text, maps or images, such as interpretation or orientation panels, must be accessible from a path, car park or access point. Avoid steep slopes or steps (which could prevent many people from reaching the sign), ensure there is a good firm, well drained surface leading to the sign and consider barriers to prevent cars blocking access to the signs
- **Visibility** – Avoid places likely to be obscured by vegetation and ensure the sign text is readable from a distance. A high sign may require larger text to be readable by someone in a wheelchair or by a young child. Make sure there is a good sight line on the approach to a sign to give cyclists or joggers plenty of time to both read it and stop (if required)
- **Exposure** – Avoid having signs facing south if possible - the sun will fade paint and printed ink much quicker. Also avoid over-hanging foliage / tree branches that will drip water onto the signs causing algae and moss growth and reduced lifespan
- **User safety** – Ensure finger post blades do not project out over the path causing a potential hazard to horse riders and children in child-carriers. Signs in or near to car parks should be located away from turning areas to reduce the possibility of a vehicle accidentally striking and damaging the sign.

What should a sign be attached to?

In most cases sign blades will be attached to a timber, metal or plastic post. This enables signs to be placed at optimum locations. However, if existing structures can be used to attach sign blades then this may save money and reduce clutter.

Points to consider:

- Think about bolting sign blades to stone walls or timber fences, but check who owns a fence or wall before starting to drill holes in it
- Stone walls may be part of a listed structure so seek advice from the access authority before attaching signs. In the case of listed historic structures contact Historic Scotland
- Existing structures may not be in the best place to locate a sign. What may be an obvious direction to you may be wrongly interpreted by others
- Never fix signs to living trees – this is damaging to the tree
- Temporary signs can be fixed to fence posts and other supports using nails, staples, cable ties or wire.

Sometimes it may be desirable to bolt sign panels to rock faces or natural boulders. This is not generally good practice due to the likelihood of causing damage, but in some circumstances can be an effective way of mounting a sign panel. Advice from the appropriate land manager should be sought prior to installation. If the location is within a designated site, i.e. nature conservation or historic site, advice must be sought from the relevant agency e.g. SNH or Historic Scotland.

How to get signs installed

There are several ways of installing signs. Which option to use depends on how many signs are being installed, the budget and where they are to be placed. Here are two options to consider:

Do it yourself

This may be the simplest and cheapest option. Provided you have the necessary skills and equipment, you are guaranteed they will be in the right place and installed properly. However, installing signs can be time consuming. Make sure you have the resources, the staff and the time. This approach is often adopted by community path groups who turn the sign installation into a volunteer project, attracting further funding and generating interest and a sense of ownership of the path network.

Using a contractor

If there are a lot of signs to install and inhouse resources are restricted, then using a contractor can be the best option. However, in order to get the correct signs in the right place, consider the following points:

- Provision of accurate maps to indicate where signs are to go
- Place tags on signs with reference numbers which refer to location numbers on an accurate map
- Do not rely solely on the map. Either go out on-site with the contractor to show them the locations or when the first signs are being installed to ensure they are correctly sited
- If this is not possible, take photographs of each installation site and indicate on the photographs where the sign should go and the direction it should point in or be orientated. You will still need to check at a convenient time that installation has been completed satisfactorily before signing off the works
- Once signs are in place check they are correctly positioned, with sign blades or arrows pointing in the right direction and are firm in the ground. Also check each site has been left tidy and safe. There should be no heaps of soil, stone or other materials left visible beneath the sign or around the site.

The Paths for All Factsheets give further advice on project and contract management: www.pathsforall.org.uk/resources

Installation details

The way a sign is installed depends on its design, materials and size.

Points to consider:

- The sign should be solid and immovable to ensure maximum longevity
- In most cases, posts can be wedged in with rocks and firmly compacted soil. Provide a cross bar at the base of the post to prevent it from being pulled out (refer to Information Sheets in Chapter 6 for more information)
- It is not always necessary to concrete posts into the ground but it is good practice for large permanent signs. Concreting may be a requirement for signs in a road corridor
- For timber posts, consider the use of metal shoes embedded in concrete so that posts can be removed for maintenance or repair.

2.9 Maintenance

Regular maintenance is essential to ensure signs remain fit for purpose and to avoid large repair costs to signs that have been neglected. Signs are an important promotion tool for a route or path network. Faded or damaged signs give the impression of general neglect, may discourage new users, responsible use and thus encourage antisocial behaviour. Missing or illegible signs may not only spoil the experience for the user, but may also result in their loss of confidence in following the route.

When determining the maintenance requirements for signs, some key planning questions should be considered fully from the outset:

- Which signs are high or low maintenance?
- What are the maintenance tasks?
- When to maintain them and how often?
- Who will inspect and maintain them?
- How much will it cost to maintain the signs?

A poorly maintained sign

So only install signs if they can be adequately maintained. In particular, the following low maintenance design options should be considered:

- Where timber is specified, use oak or larch to avoid the need to re-treat periodically
- If steel is used, always specify a galvanised finish, as this form of treatment limits corrosion. Galvanised steel can still be painted or powder coated, if colours are required
- If you are looking for a maintenance free solution, recycled plastic signs should be considered. They require no treatment or painting.

Planning-in replacements

If orientation panels are required, make them easily replaceable. Equally, when purchasing waymarkers or finger posts, either have a stock of replacements available which can be installed quickly, or have an arrangement with the manufacturer so that replacements can be produced economically and promptly.

Maintenance schedule

It is good practice to produce and adopt a maintenance schedule to help manage and maintain signage as well as other path features. Well designed maintenance schedules should consist of an inspection regime and a list of planned maintenance tasks. These should be realistic and capable of keeping an individual route or path network 'fit for purpose'. They generally have the following characteristics in common:

- Collect only relevant data that is needed to carry out efficient maintenance
- Ensure that inspection or maintenance tasks can be easily duplicated by different people
- Regularly inspect and prioritise which paths and features require maintenance
- Use informative photographs that are indexed and referenced to their feature location
- Use digital technology (see overleaf 'Planning for maintenance - use of digital technology') to collect the necessary 'live' information to plan and monitor maintenance tasks and record completed works.

There are a number of be-spoke packages which can be used in conjunction with hand held Global Positioning Systems to record all aspects required for the maintenance schedule. If this is not available, the following basic information can be recorded onto a data maintenance schedule sheet produced in Microsoft™ Word, Access or Excel:

- Sign type – record a short description for each sign. For example, 'timber waymarker / routed green arrows'; 'recycled plastic finger post / routed blade / white lettering'
- Location – record the exact location of each sign. For example, 'start of golf green path'. Mark the locations of signs onto a suitable scaled map or plan. This map or plan will help those who undertake the maintenance tasks to quickly locate the exact position of damaged signs that need repairs, or the site location for a replacement sign where the existing sign has gone missing
- Maintenance task – record a short description / instruction that tells the person inspecting or maintaining the sign what action is required. For example, 'check sign is clear of overhanging vegetation, pointing in the right direction, and readable'; 'check for damaged, loose or missing plastic arrow discs on post'. Record necessary repairs or replacement

- Frequency – record ‘weekly’, ‘fortnightly’, ‘monthly’, ‘bi-monthly’, ‘annually’, or ‘on inspection of paths’. For example, you may choose to inspect all signs only once every year, so you record - ‘annually’
- ‘When to carry out particular maintenance task?’ - record the month or months that the task should be carried out
- ‘Who will complete the inspection and maintenance tasks?’ - record the persons appointed to inspect and maintain the signs: Access Officer, contractor or volunteer.

Reporting sign problems

Local path users may be the first to encounter a maintenance problem. Encourage these users to report problems easily and quickly. Publicise the Access Officer or Ranger Service contact telephone number on orientation panels and leaflets.

Planning for maintenance - use of digital technology

Scotland’s access authorities have either in-house or commercially developed computer based paths databases linked to a Geographic Information System (GIS). GIS can be used to locate an individual path or network of paths and the features such as signs that require continuous management and maintenance. A computer based paths database linked to GIS can be used to plan maintenance tasks, monitor and record completed works and expenditure.

The publication ‘Lowland Path Construction - A Guide to Good Practice’ provides further advice and information on maintenance planning, inspection, maintenance tasks, and resourcing and reducing maintenance requirements: www.pathsforall.org.uk/resources

Chapter 3

Advisory Signage

(including Warning and Information Signs)

3

Chapter 3 Advisory Signage (including Warning and Information Signs)

Advisory signage helps users to act responsibly, to be aware of hazards and gives information about accessibility; in other words, information in addition to basic direction, destination and distance.

3.1 Assisting responsible access

The Code is the main source of information for users to determine what constitutes responsible access. Advisory signage can help communicate the Code's key messages. Often a simple 'know the code before you go' message placed on trail head panels, leaflets and websites, perhaps with a brief list of the key Code messages, is all that is required. Chapter 1 gives details of using the Code on signs, but the following should also be considered:

- In the majority of cases, advisory signs can be used to help people make their own judgements on whether they can take access responsibly. They should not be used to prevent or deter responsible access
- Avoid quoting large sections of the Code - use key messages only
- SNH and partners produce leaflets and posters which highlight Code messages for specific situations. These are available from: www.outdooraccess-scotland.com
- Avoid trying to give advice on the level of use on paths, their susceptibility to erosion or damage from different uses as these depend on many variables such as the weather, time of year, time of day and day of week. However, you might say that the path is narrow and often busy - so watch out for other users; this helps people to be responsible
- Signs can help people who wish to behave responsibly but maybe are not aware of the specific circumstances of a site, for example, giving simple guidance on the responsible way to light and manage a fire in a popular camping area. However, it is worth remembering that people who do not want to act responsibly may ignore such signage
- Signs for influencing responsible behaviour should only be used as part of broader marketing approaches to paths promotion involving maps, leaflets, websites, user group information networks and other media. Signs should be the end point of a promotion process, not the beginning.

We have avoided providing standard wording for advisory signage aimed at aiding responsible access. Providing generic signs can dilute a message and make it much less effective. Every site has its own circumstances so use the Code and the good practice in this guide to determine design, location and wording. Contact SNH for help with key issues and the provision of specific guidance: **www.snh.org.uk**

Advisory signage where access rights do not apply

In many cases advisory signs for these situations will not be required, for example, building curtilages and areas of privacy around houses such as lawns, flower beds and sheds, as they will be reasonably obvious. However, helpful directional signs, in combination with path provision, will help people to avoid these areas.

Reminder signs

Signs with messages such as ‘please leave gates as you find them because…’ and ‘please take your litter home because…’ are useful in helping to support the Code’s three key principles, and people are more likely to take note. They should be used selectively where they prompt the public to behave responsibly. However, be mindful of the problems of excessive signage and diluting the message, such as in the example shown below.

3.2 Managing shared use through signage

Before the Act, different access user groups were generally advised on which paths they could and could not use. In many such situations, signs displaying recognised user symbols, e.g. walker, cyclist and horse rider, were used to indicate suitability for one particular user group, whilst discouraging other user groups from using that route. One of the most important changes since the Act is the lack of segregation between different user groups. Where access rights apply, signs must be compliant with the Act and the Code - i.e. they must not deter legitimate access (under the Act), and not discourage responsible access as defined by the Code.

It is largely for users to decide what responsible use is in a given situation and for land managers to provide useful information to help users make informed decisions when taking responsible access.

Sign wording

Inappropriate wording can act as a barrier to people exercising their access rights. For example, the ability to exclude cyclists by using the word 'footpath' is not compliant with the Act or the Code. With this in mind consideration should be given to the following:

- Use the word 'path' or 'trail', or 'way' or 'route'; rather than 'footpath', 'cyclepath', 'bridlepath' or 'walkway'
- Avoid, where possible, 'private', 'keep out' and 'no entry' (see also Section 3.5 'Supporting land management operations')
- Where restrictions on motor vehicles are required, use wording such as 'no unauthorised vehicles' or 'no motorcycles'.

Sign symbols

The use of symbols, such as those above, to specify a particular mode of use is contrary to the spirit of the Act and the Code, as this may infer that a path may not be used by other user groups.

Some points to highlight regarding the use of symbols for shared use paths:

- Avoid using symbols on signs
- Existing symbols systems, which were acceptable prior to the Act, can no longer offer ready solutions for management of shared use which are Act and Code compliant
- The use of symbols to promote a specific mode of use is contrary to the spirit of the Act, as this may infer that a path may not be used by other user groups
- The use of a single symbol is too simplistic to represent the full range of abilities, aspirations and needs within a user group, e.g. from novice cyclists to extreme mountain bikers
- In the majority of cases, the use of symbols to prohibit particular types of use will not be Code compliant as the manager cannot readily determine what will be responsible use
- Specifically, the use of the statutory prohibition signs (red circle with red diagonal slash) is not Code compliant and should not be used
- Advising users on hazards or obstructions can be done using hazard warning signs or text advisory information signs.

Example of potential for ambiguous messages when using symbols

- It could indicate that the route is suitable for cycling
- It might infer that the route is not suitable for other users
- It may suggest that other routes are not suitable for cycling
- This single symbol will not by itself provide sufficient information on what cycling abilities the route is suited for
- It indicates a recommended waymarked route.

3.3 Is signage for single use management appropriate

Signing a path for a specific use is not consistent with the ethos of the Act and the Code. Also such an approach may potentially undersell a path as many other responsible access user groups may be put off.

Occasionally however, health and safety concerns may dictate additional management and signage. A well known example is the Forestry Commission Scotland's (FCS) 7 Stanes purpose built mountain bike trails. Having other users on these trails is highly undesirable for safety reasons - particularly the downhill sections. Instead, advisory signs make it obvious that it is a mountain bike trail with serious safety implications for other users. It is the experience of FCS that other users respect this approach and use the specific routes created for them. Likewise, mountain bikers avoid using the trails promoted for other users. No entry signs have been placed on the one way routes to discourage cyclists using the routes in the wrong direction and 'Is this the trail for you?' signs are placed at the start of the single track sections. This prompts mountain bikers to check that they are about to use a route appropriate to their skills and abilities.

The Forestry Commission Cycle Code is widely promoted at their sites. The key messages are 'expect the unexpected', 'watch out for other visitors' and 'to respect other users', in line with the Scottish Outdoor Access Code.

Some country parks are looking to adopt similar approaches where there is very high use of all types of user. The key is not to tell people where they can and cannot go, but to indicate routes offering specific attractions to particular users. Similarly a number of health walk projects are signing health walk routes and effectively promoting them as walking routes suitable for people wishing to take thirty minutes of moderate exercise.

It is recommended that the marking of country park routes, health walks etc, should aim to use either just a colour or a bespoke logo design as the waymarker symbol, which cannot then be confused as having any wider implications over types of 'authorised' user.

This approach ensures signage and wording is compliant with the Act and the Code.

3.4 Signage for accessibility

The key principle for providing good access opportunities for disabled users is to provide high-quality information to help them to make informed decisions on a path or area suitability. Advisory signs can assist with this process but, in many cases, there may be too much information for signs alone and so other means of communication may be required, for example website use - see Section 1.3 ‘Communication essentials’.

Consider what information (if any) is required and avoid stating the obvious. If a path heads up into a mountainous area most people will assume the path will reflect the terrain - rough and steep! Signage to this effect is not necessary. However, if an easy access path is provided in such an environment, inform users of this as they may not expect such a facility.

Here are the key features that affect accessibility:

- Access barriers (e.g. kissing gates and stiles)
- Width of path
- Longitudinal gradient
- Cross gradient
- Surface roughness
- Presence of steps.

It is not just people with mobility problems or those who use a wheelchair that will appreciate this information. People pushing prams or with small children, elderly people and many other users will also benefit. Points to consider:

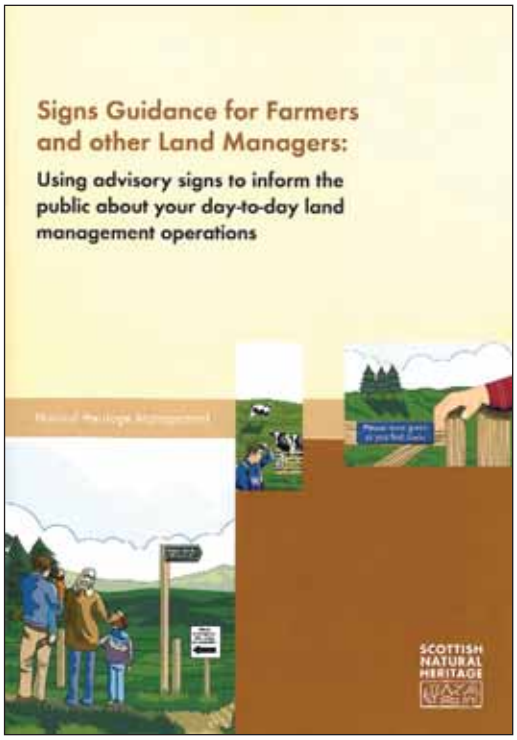
- Provide information on the physical features of an area or path
- Include information on passing places, resting areas and turning points for wheelchair users
- Print sizes on signs or orientation panels need to be big enough for people to able to read the text easily. The following minimum print sizes are recommended: titles 60 – 72 point, subtitles 40 – 48 point, body text 24 point, captions 18 point
- Use a normal mixture of upper and lower case print. If possible, include some information in tactile format to allow those who are blind or partially sighted to read it
- People who are blind or partially sighted will need to get close to a sign or panel to read it - ensure they are placed in an accessible location
- The bigger the size of print the further away people can read it
- Symbols or pictures may describe a physical feature better than text and are more accessible to people with learning difficulties and those who do not read English
- Provide a key - either in a leaflet, on an orientation panel or main access point sign so that people can interpret the symbols
- Every change in terrain or gradient does not need to be signed. Consider what the important barriers are and sign these. Consider a section of path with several barriers and simply provide a short piece of text describing them at the access points and/or on leaflets. Each barrier does not need a separate sign. For example 'This path has gradients between 1:12 and 1:10 for most of its length, the surface is generally smooth with cross gradients between 1:40 and 1:50'
- Orientation panels with braille and tactile lettering, symbols, and images can be used to highlight key features, such as barriers or areas allowing easy access
- Orientation panels should be installed at a height appropriate for use by wheelchair users. Information Sheet 6.7 provides height measurements for panels within the cone of vision (objects must fit inside the cone of vision or else they become distorted).

Path grading system

A common demand from both access users and managers is for a universal path grading system. There is a wide range of types of terrain across Scotland, and seasonal variations can change the condition of a path or route dramatically. This makes a universal grading system fraught with difficulties and may be of little practical use to access managers or users. Therefore, there are currently no plans to introduce a universal path grading system throughout Scotland.

3.5 Supporting land management operations

Advisory signage has an important role to play in enabling land management operations to be carried out safely and effectively without compromising access rights. The SNH publication 'Signs Guidance for Farmers and other Land Managers: using advisory signs to inform the public about your day-to-day land management operations' gives the most up to date information. This guidance is available free and can be downloaded from: www.outdooraccess-scotland.com



For the purposes of this guide, we will discuss the basic principles relating to advisory signage for land management operations. Refer also to the principles of sign planning, design and maintenance described in Chapters 2 and 4.

Agricultural operations

Points to consider:

- Often a simple sign will fulfil both health and safety legislation obligations and allow responsible access to be taken
- People passing through farmland will expect to see and encounter agricultural vehicles and machinery, therefore, not every operation requires signage
- Advisory signage may be required for specific higher risk situations such as a field with a bull or cows with calves, crop spraying, slurry spreading, large scale movement of heavy machinery (e.g. during harvest time), or any other operations where the hazard may not be obvious or expected
- Avoid excluding access from a large area when an operation is taking place in only part of it. People are more likely to enter an area if they can see no obvious reason not to do so
- Remember to take down temporary signs as soon as the operation is complete or the hazard is no longer present
- Precautions taken must be reasonable and practical. If a hazardous operation does require an area of land to be closed temporarily, minimise the time this occurs, provide a diversion and give plenty of notice so regular users can alter their plans accordingly

- Advisory signs alerting users to the presence of bulls and other cattle, including cows with calves, should be informative and based on the guidance from the Code. For further information regarding health and safety in relation to cattle and access in Scotland, refer to the Health and Safety Executive's Agriculture Information Sheet No.17S: www.hse.gov.uk/pubns
- Speak to Access Officers and Rangers who will advise on the legal process associated with temporary closures and assist with publicising any such closures, including any necessary signage. These officers can also help with writing standard wording for advisory signs based on the messages of the Code, or provide examples of what is appropriate for a local situation
- Refer to relevant health and safety legislation and approved codes of practice
- The Health and Safety Executive's website provides useful guidance relating to agricultural operations: www.hse.gov.uk/agriculture

Forestry operations

Forestry operations and the machinery used pose specific hazards. The best way of managing these hazards is to inform the public of working times and areas. In many cases, however, operations will be carried out in only a small part of a large forest, often far from the public eye.

Example

Consider tree thinning operations within large woodland with regular public access. The work site itself will be fairly small but thinning operations move around on a day-to-day basis as the harvester works its way around the forest. There may also be timber lorries using the site to extract felled timber.

- General information signs

  At all access points, place signs informing users of forestry operations in the area with a note to watch out for specific guidance near to working areas and for timber lorries on haul roads. State days and times that operations are to be carried out. Include a contact number if possible

Example *continued*

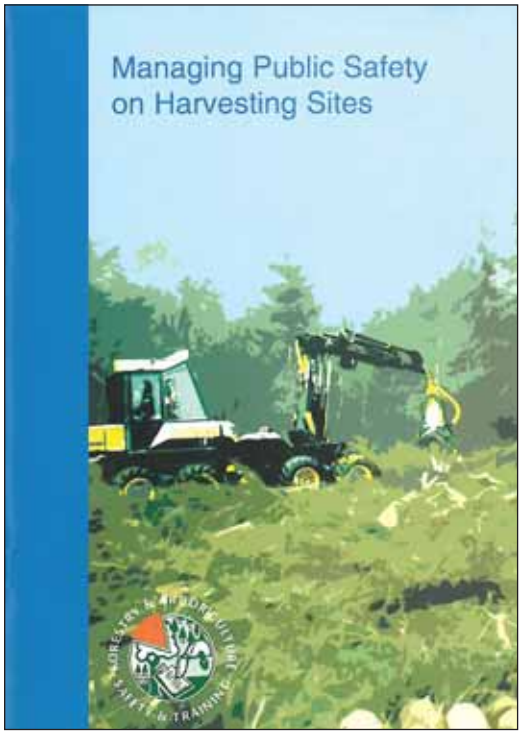
- Working area signs

  Place signs on approaches and at the edge of the working area. These should be moved as the works progress (usually at the start of each working day). In most cases relevant guidelines state an exclusion zone must be created around the felling site. If this includes a popular path then provide a diversion around the working area

- Storage areas and haul roads

  Standard signage to keep people off timber stacks should be placed around storage areas. Haul roads need not be closed off as lorries will give plenty of warning of their approach. However, haul roads should be signed so the public can be on the look out for lorries and a 10mph speed limit should be enforced.

This approach can also be applied to many agricultural operations as the basic scenario will often be the same i.e. there will be an operation going on in a discreet part of a large area. Signage need not be elaborate. Standard signs printed on plastic boards are available which will cover most of the above requirements. Extra information can be provided on a laminated paper sign. If a contractor is being used then they should provide signage as part of their contract. For specific guidance on managing public safety on felling sites, the publication 'Managing Public Safety on Harvesting Sites' (ISBN 0 7176 2671 1) is available from HSE Books: www.hsebooks.co.uk



Deer management signage

The integration of deer stalking and responsible access has been considered by the 'Stalking Signage and Communications' sub-group of the National Access Forum; the sub-group have produced signage guidance which is available at: www.outdooraccess-scotland.com

A starting point for the management of stalking on land to which access rights apply is to provide accurate and up to date information as to where and when stalking is taking place. This can be achieved in several ways including signs, Hillphones and the provision of contact numbers for estates, for example through websites or local information outlets. Circumstances vary between estates and different approaches, or combinations of approaches, may be appropriate in different areas.

Some key considerations apply to all forms of communication about stalking activity:

- Any requests should relate to specific days and apply to the minimum necessary area - this is more likely to encourage a positive response than a longer-term and more general message
- Requests should include suggested alternative routes of a similar nature which will not interfere with stalking; these should normally start from the same location or, failing that, nearby.

The guidance produced by the National Access Forum provides more information about how this can be achieved using signs, including sign templates for use in common situations. Further information about the 'Hillphones' scheme can be obtained at: www.hillphones.info

Path construction site signage

If construction work is being carried out on a path or area subject to access rights then signage is a good way of providing clear and specific information to users. Always think about using other means of communication to support the signs. Avoid, where possible, a situation where users arrive at a main access point only to discover their planned route is closed due to construction works.

Points to consider:

- If closures are necessary, then provide information on websites, at visitor centres, in car parks etc, in good time
- To prevent conflict and confusion, have a sign at the start of a path or main access points giving some brief information on what and why works are being carried out
- Make closures as short as possible and try to have the area open when works are not taking place, e.g. at weekends and evenings
- If required and where possible, provide a diversion
- At work areas, provide further signage to inform people they are approaching the construction site
- Access rights do not apply to a site where building or civil engineering works are taking place (s. 6g of the Act) so it is possible to use 'No Entry' signs. However, give serious consideration as to how effective these will be. Restrict such measures to specific hazardous areas or for operations such as a bridge installations. The Paths for All Factsheets 'Dealing with Hazards and Risk Assessment' and 'A Guide to the Construction (Design and Management) Regulations 2007' provide further detail: www.pathsforall.org.uk/resources

3.6 Hazard warning signage

Landowners have a legal requirement to manage hazards and risks in the outdoors. Signage can help to manage hazards appropriately. This section covers the principles and the use of signage in hazard management.

Identifying and managing hazards

There are two key principles of hazard management:

- Can the hazard be removed or avoided completely?
- If not can it be reduced to a reasonable level?

Before a hazard can be managed it must be identified and assessed. It is good practice to have a formal inspection regime for core paths and other promoted routes. For other paths and general areas subject to access rights, formal inspections may be unnecessary. Instead have a system whereby users and land managers can report hazards. Regular access users and land managers are a good source of information on possible hazards.

Once identified, how a hazard is managed depends on the level of risk. Risk can be defined as the likelihood and consequences of someone being harmed. The Paths for All Factsheet 'Dealing with Hazards and Risk Assessment' explains the process of identifying and managing hazards and carrying out a risk assessment: www.pathsforall.org.uk/resources

The publication 'Managing Visitor Safety in the Countryside' provides useful information on how to identify hazards in the outdoors and how they can be managed without compromising either visitor safety or the nature of the area in which they are located. See the Visitor Safety in the Countryside Group website: www.vscg.co.uk.

The Scottish Rural Property and Business Association publication 'Managing Access - Guidance for Owners and Managers of Land' also gives useful advice: www.pathsforall.org.uk/resources

In all cases, the first option is to consider if it is reasonable and practicable to remove the hazard. That is, consider whether measures to remove or avoid the hazard are feasible, realistic and effective. Common sense is the best way of assessing this. For example, it is not reasonable to implement measures which are excessively costly, that may compromise natural or cultural heritage or are impractical.

If a hazard cannot reasonably be removed or avoided then it must be reduced to an acceptable level. In many cases simply informing people of the presence of a hazard and any precautions they should take will be sufficient. This is where signage can play a part.

Some basic questions to consider:

- Is the hazard natural?
- Is it obvious or expected to all possible access users?
- Is the hazard intrinsic to the environment the path passes through?
- Is the hazard seasonal?
- Who is going to use the site?
- Is the hazard structural?
- Does the hazard involve machinery?

In many cases people will be able to identify and deal with hazards without needing to be informed by a sign. Focus on hazards which are neither obvious nor expected. Hazards with a low risk should be considered, but resources should be concentrated on medium to high risks as it is these hazards which are most likely to cause injuries. Consider what reasonable measures could be put in place to ensure people's safety.

A list of possible options:

- Alter the route of path
- Remove the hazard
- Fence off the hazard or hazardous area
- Inform users of the hazard and how to avoid it (signage).

Information Sheet 6.13 provides a worked example of a hazard identification and management process.

Example – Natural hazard

Unstable ground, steep drops

- At site access – 'unstable ground, steep drops, 400m ahead' with hazard symbol
- At hazard – 'unstable ground, steep drops' with hazard symbol.

Location of hazard warning signs

If hazard warning signs are required, where to place them is of crucial importance. Leaflets, websites and guide books may also need to include hazard information.

Points to consider

- On-site signage should be placed to capture people's attention
- Include permanent hazard advice on orientation panels at main access points
- Make the information specific rather than general. Signs like 'dangerous path' or 'hazardous area' tell people nothing about what to expect and are of little use
- Provide in-advance signage immediately before the hazardous area. This advises people that there is a risk and they are more likely to take precautions. If the hazard that a sign is referring to does not seem to manifest itself, users are more likely to ignore advice and take less care
- Consider placing a sign after the hazardous section so users can relax!

Example – Corrieshalloch Gorge

Corrieshalloch Gorge in the northwest of Scotland is managed by the National Trust for Scotland. It is a large and deep gorge with high, sheer cliffs that are obviously hazardous. The access routes to the site were improved with the provision of easy access paths, a new car park, a viewing platform suspended over the gorge and the refurbishment of an existing bridge. It is a Site of Special Scientific Interest so any works, including signage, had to be appropriate to the surroundings. Given the accessibility of the site and its widespread promotion in both National Trust for Scotland literature and national tourism promotion, there is a need to manage and advise the large number of visitors of all ages and abilities both from the UK and abroad of the significant hazards present.

The photos below show some of the management approaches taken to hazard signage:

Corrieshalloch Gorge viewing platform

Orientation panel with hazard information

Bridge viewing platform with hazard sign

Hazard sign

3.7 Advisory signage for water users

Water access has some specific considerations which require a unique approach to signage.

Water poses a range of hazards that are very different from those encountered on land. Barriers on a river such as a fallen tree or scaffolding underneath a bridge can present a potential hazard. It is the natural hazards that water users are there to enjoy but news of short term hazards needs to be conveyed via signs, websites and other means. Signs aimed at paddlesport users tend to have a greater safety element than signs aimed at land-based users. On wider rivers a paddlesport user might not see a sign on the bank or might not be able to make it across the river to read what it says. It is important, therefore, to attempt to communicate safety messages to paddlesport users via prominently located signs.

Points to consider:

- Leaflets, websites and guide books are a useful media for providing this information
- Use signage at known car parks and access/egress points - but be prepared that paddlers may take access/egress at other places
- In certain circumstances consider signage upstream of a hazard on rivers. For example, if there is scaffolding underneath a bridge a sign should be placed at all the access points upstream of the bridge, as well as placing a sign on the river bank well in advance of the bridge
- Signage should be facing upstream with no doubt as to whom it is addressed and the nature of the danger
- Position signs above the high water level mark, well in advance of the hazard and if possible on both sides of the river
- Motorised craft of various kinds, e.g. motor cruisers, jet skis, have navigation rights on many inland water bodies. Signage can help to manage the interaction between motorised and non-motorised users. For example, both sets of users need to know if there is a speed restriction for motorised craft or a priority system close to the launching area

- Signs can help with communications between anglers and paddlesport users. When such signs are used, they should be positioned so that both groups are able to see them. Where anglers and paddlesport users use different car parks it is vital that the signs are displayed in both car parks.

The Scottish Canoe Association (SCA) and Scottish Rural Property & Business Association, in conjunction with several other bodies and with assistance from the Paths for All and SNH, have produced a joint Good Practice Guidance publication. This guidance offers a wide range of advice on managing recreational use of water, and is available on the Paths for All website: www.pathsforall.org.uk

3.8 Protecting nature conservation interests

As outlined in Section 1.3 on communication essentials, signage is only one of many approaches that can be used to communicate information. General information about wildlife for example, would usually be more suitable on an interpretation board, in a leaflet or on a website. As well as choosing the most appropriate form of communication for your message, it is also important to consider the range of other tools available to manage visitors on nature conservation areas such as site design and planning, site management and education programmes. The choice of management measures will depend on a variety of factors, including site history (effectiveness of previous measures), the activities causing or likely to cause damage or disturbance (whether within access rights or not), and the natural heritage interest and site status (whether the site is designated and/or the species protected). The measures used must be proportionate and appropriate to the nature conservation issue being addressed.

The sort of issues involved might include:

- Fragile habitats sensitive to damage and species vulnerable to disturbance
- Activities or behaviour that would affect nature conservation interests
- How people can minimise their impact on habitats or species, for example by keeping to the path or keeping dogs on a lead or under close control.

It should be remembered that access rights are statutory rights conveyed by Parliament and can only be removed, restricted or regulated by another relevant statutory power or mechanism, used for the correct purpose by the appropriate authorised body and having gone through due process. The main statutory powers available to certain organisations are:

Land Reform (Scotland) Act 2003 - section 29: Gives SNH the power to put up notices to protect the natural heritage of land on which people can exercise access rights. SNH has produced guidance for its staff on the procedures to be followed when considering using this power, which includes an assessment proforma and a sign template. It is envisaged that signs erected could be used to temporarily restrict access to, or certain activities within, an area where significant adverse impacts on the natural heritage are predicted to occur from the exercise of access rights. Consistent with the above guidance, it is likely that the power would only be used in a small number of cases in circumstances where it provides a more effective solution over other access management options.

Nature Conservation (Scotland) Act 2004 - section 41: Allows SNH to use signs to provide information about land to which a Site of Special Scientific Interest notification, Nature Conservation Order, Land Management Order, or byelaw made under section 20(1), relates. This signage could relate to any activity that could damage nature conservation interests and not just those within access rights.

Byelaws: Local authorities, National Park Authorities and others, under various pieces of legislation, can make byelaws to conserve the natural heritage and generally prevent damage to land over which they have control.

Civic Government (Scotland) Act 1982 - section 112: Permits the introduction of management rules by local authorities to regulate the use and conduct of people on land they own, occupy, manage or control.

In addition, other legislation may place obligations on site managers to take appropriate action. For example, SNH and other public bodies managing Natura sites (Special Areas of Conservation and Special Protection Areas) have a duty to ensure that suitable steps are taken to avoid deterioration or disturbance of qualifying interests. Signage might be an appropriate management measure to use if a recreational activity is likely to result in deterioration of habitats or significant disturbance of species for which the site has been designated.

The due process for using such mechanisms ensures they can only be employed judiciously, when there is sufficient evidence to justify their use and the approach is judged to be the most effective management option. The wording of signs put up by appropriate authorities using their statutory powers can be instructional as they have a basis in law, and failure to comply can have legal consequences (though should still be courteous in their tone).

However, other signs may not have a legal status and will, therefore, be informative or advisory in nature, designed to raise awareness and help people to exercise their access rights responsibly in a way which takes proper account of the nature conservation interests.

All signs must be consistent with the Code, and their purpose is to inform and influence people's decisions, i.e. advice-giving rather than instructional. If people understand the reason for a request they will be more likely to comply with the advice.

The principles of ‘minimum time’ and ‘minimum area’ apply. Signs relating to bird breeding, for instance, should specify dates and must be removed once the breeding season is over. The area involved should be clearly identified, either by using a map or by describing the area in terms of distance or key features. However, within these principles there can be scope to think creatively about the best way to engage with the audience, as suggested in Chapter 1.3.

Asking people to avoid an area or abstain from an activity when there is no valid conservation related reason, or keeping up a sign beyond the minimum time required, might be regarded as an unreasonable obstruction or deterrence to someone legitimately exercising their access rights. If in doubt, contact the access authority for advice. In certain circumstances, it might also be advisable to speak to SNH (especially about designated sites), the local police wildlife liaison officer or other relevant interests to ensure that everyone is aware of, and in agreement with, the proposed signs.

Signage on its own may be insufficient to adequately respond to an access and nature conservation issue. This may be due to a range of factors including the wording of the sign not being clear or persuasive, or the location of the signage not reaching the intended audience. Signage may need to be supplemented by other measures - for example, marking an alternative route around a sensitive area, or erecting a temporary fence/screen near a bird breeding site in addition to signs explaining what the public are being asked to do and why.

The presence of staff, such as a site warden, ranger or others, can often be invaluable in helping to reinforce the message on a sign and to monitor its effectiveness. Engagement with the local community, or interest groups such as a local climbing club, can also help to engender support for, and compliance with, signs.

For more information about protecting nature conservation interests: www.snh.org.uk

3.9 Cultural heritage sites

Some cultural heritage sites such as ancient monuments are obvious. Less obvious are buried archaeological remains and 20th century military remains. Some heritage sites will be protected by statutory law (Ancient Monuments & Archaeological Areas Act 1979) as Scheduled Monuments and some are designated as World Heritage Sites for their international importance (presently there are five Scottish World Heritage Sites, the most recent being the Antonine Wall, July 2008). Other less significant sites may not be protected. Cultural heritage sites, whether protected or not, are popular places of interest, enjoyment and quiet reflection, and are important for what they tell us of the past.

Access rights, under the Land Reform (Scotland) Act 2003, apply to historic or archaeological sites that are not supervised. Sites charging an entry fee will be exempt from access rights. The Code (section 3.49 - 3.52) outlines responsible behaviour in relation to cultural heritage.

Signage is not only important for making heritage sites more easily accessible and visible but also a tool for getting the message across to users about responsible access and site protection.

Advisory information signage can convey messages to users on how they might best avoid causing any damage or disturbance to a site. If signs are required to restrict access for cultural heritage reasons, they should only be in conjunction with the access authority and/or Historic Scotland.

Points to consider:

- Ensure signs are not installed on top of visible archaeological remains or into buried deposits
- Take quotes from the Code to help create signs and to modify user behaviour.

Where excessive wear and tear of the site has become an issue, then clear on-site advisory signage can help to re-route or suggest an alternative path. This will allow temporary closure of the existing route for repairs.

For more information about protecting cultural heritage sites:
www.historic-scotland.gov.uk

Chapter 4

Directional Signage

4

Chapter 4 Directional Signage

Directional signage is used to provide people with information on where a path goes and how far it is to a given destination. It gives people the confidence to use paths by making them feel welcome and helps them in areas where routes are less clear. Good directional signage is crucial to ensure a path fulfils its purpose and will provide an advertising and promotional role. Directional signage can also be used to simply direct people to specific points such as a viewpoint or an access point to a river.

The following sections gives guidance on ways of providing this information. Firstly, however, it is important to define terms:

Fingerpost - a sign with one or more blades pointing to a destination or destinations. These are usually placed at the start of a path, as well as at junctions with other paths.

Waymarking - markers along the route at points where the direction of the path may be unclear or where confirmation of the route is required. They are usually very basic, providing simple information on direction only.

Orientation panel - refers to a large sign at a main access point which provides details of all paths and routes in an area. This is usually done using a coloured map and includes more information on the destinations and distances.

4.1 Finger posts

A finger post is a simple way of providing users with the 3 Ds.

Direction
Destination
Distance

Direction

This is obviously the most important part of directional signage. Finger posts can be very effective in this respect as the blade which contains the text is also the arrow. It is crucial to place the post in the correct location and pointing in the right direction (see Section 4.4 'Location of directional signage').

Destination

A sign which simply says 'path' does not give the user any information on destination. Wherever possible, state the destination(s). If paths do not have an obvious destination, or are part of a wider network, then consider how people are likely to use the network and provide information that will be of best use.

Often the same destination will be known by several different names. It is good to use locally recognised names but beware of contradicting information on the Ordnance Survey (OS) map or other publications, as this may confuse people. A good rule of thumb is to use the place name which appears on the OS map. If the destination is a business, a farm or other private dwelling, make sure you obtain the necessary permissions from the owners.

Sometimes a local path will form part of a longer strategic route. In such a situation consider having a small sign at the point where the routes meet stating 'For the X way follow the Y way for 5 miles' to avoid having multiple logos on sign posts.

Distance

In general, if a destination is provided, a distance should be provided too. This is the best way of letting people know how long a path will take them to complete. If a network has one or more circular routes with no destination it will still be useful to state the distance at the start of each route.

It is recommended that distances should be given in miles in accordance with road signs. In most cases the simple provision of a number alone is all that is required - just as in road signs.

There is debate as to whether or not estimated time should be included on a sign. This is not recommended as there are many factors that can influence time and paths will be used by a range of users with varying abilities.

Layout

Over the years a fairly standard format for finger posts has evolved. Here is an example:

'Path' should be in 150 point and the destinations and distances in 100 point. The green background is a recognisable format common across Scotland with good contrast and readability.

Standard designs

Information Sheets 6.3 and 6.4 provide simple, standard designs for finger posts. However, if a unique design is required, follow the principles of this guidance to ensure it is fit for purpose. If a path has a name, then this should be substituted for or added to the word 'path'.

The table below provides a summary of the pros and cons of using the designs described in the Information Sheets.

	Metal signs with green / white blade	Timber signs	Timber with insert
Pros	Wide recognition nationally Lettering sharp and contrasts well with background Robust and low maintenance	Good 'fit' in countryside setting Wide aesthetic appeal Use of sustainable materials	Retains widely recognised green / white format Low maintenance Insert plate can be removed and changed without having to replace whole sign Lettering sharp and contrasts well with background
Cons	Less acceptable in countryside setting (although cast metal sign or wooden post help) Sign blades can be rotated around steel posts	High maintenance - lettering requires repainting every 2-5 years Lacks consistency Variation in quality of wood	Variation in quality of wood Cost Inserts susceptible to removal

ScotWays directional signs

The green and white style of signs used by the Scottish Rights of Way and Access Society (ScotWays) appears across Scotland and is instantly recognisable. It provides very clear information as the lettering is sharp and contrasts well with the background. It is possible to use this format for timber or metal signs and the finished product is simple and effective. Whilst traditionally indicating Rights of Way only, they are now being used across Scotland for signage for a wide range of paths or routes by other organisations as well as ScotWays. If a simple, generic design for directional signage is required then the green background / white lettering has much to recommend it.

4.2 Waymarking

Direction

Waymarking is a way of ensuring people can follow a route without getting lost - they provide confidence. It augments finger posts and will generally only provide information on direction. Typically waymarking is carried out using simple routed painted arrows or plastic discs with printed arrow. In some cases waymarkers can be used to mark different routes at junctions although this is usually best done with a finger post. However, if you are on a low budget, waymarkers may be an acceptable compromise.

Design

In the majority of cases a timber post (see Information Sheet 6.1) provides a simple and effective way of providing waymarking. Plastic discs with a digitally printed arrow are common and sometimes incorporate a logo (see 'Logos and branding' within Section 2.4). These are simple and effective but can be prone to theft (plus they can make inviting targets for people with air rifles!). However, placing them in a routed, recessed circle makes them less prone to removal. Discs can also be attached directly to the post surface using small screws. Have a good supply in stock so that damaged ones can be replaced quickly. Another option is to rout and paint the arrow into the post although this requires specific post designs for different locations and can be more costly.

Waymarker post with routed recess and plastic discs

Waymarker post with routed arrow

The table below outlines the pros and cons of using routed, painted arrows and attaching or recessing a plastic disc.

	Routed painted arrow	Attached disk	Recessed disk
Pros	Aesthetically pleasing Simple	Ultimate flexibility of options Can be rotated, changed or located on any side of post	Looks neater than attached disk More difficult to remove
Cons	Arrow is permanently fixed Arrow needs periodic repainting	Easily removed or damaged	Restricts options unless holes routed on all 4 faces Routing disc recesses is difficult on site - easier done in a workshop

Help people to follow a path

The waymarking required on a path depends on the path's attributes. If it is a fenced corridor or has a clearly defined surface then waymarking probably will not be needed.

If a path is poorly defined, then more waymarking may be required, for example, make each waymarker post visible from the preceding one. Path users can then 'join the dots' and follow the route easily. If a path crosses fenced fields or dykes, the gates at fence crossings can effectively waymark the route reducing the requirement for waymarkers. Arrows or discs can be fixed to gates and fences. It is also worth considering whether a path can be 'waymarked' using landscape design – for example, planting and strategically placed boulders can be used to define a route without recourse to sign posts. Also consider sight lines so that cyclists or joggers can see a directional sign in time to change direction.

Points to consider:

- Avoid single waymarker posts with lots of arrows unless absolutely necessary - they can confuse people
- Install waymarker posts next to junctions so people are clear which path / route to take
- Waymark both ways - it helps users to retrace their steps or to use paths in both directions
- Make sure that waymarking arrows point in the direction you want people to go. Arrows directing people to go straight ahead should ideally be placed horizontally on the side of the post, but it is also acceptable to have an arrow pointing straight up - be aware, however, that this may be confusing for people with learning disabilities
- Make sure waymarker posts and arrows can be clearly seen against background vegetation.

Waymarking the European way

Whilst not an accepted practice in Scotland, on many paths in Europe waymarking is done by the simple method of painting coloured marks on rocks, walls, fence posts or other features adjacent to the path. This is a low cost alternative to installing waymarker posts and will minimise maintenance. Many of the schemes in France use colour coded marks and much use is made of artificial features, rather than natural ones. However, it may be undesirable to have numerous paint marks and on historic features this will not be welcome. So, if such a system is being considered think carefully and consult agencies such as Historic Scotland and Scottish Natural Heritage, as well as local users and land managers.

4.3 Orientation panels

Direction
Destination
Distance

In many ways an orientation panel is useful at the start of a path network or outdoor recreation site. Its purpose is to promote the site and inform users of what paths are in the area and where they go. An orientation panel must provide enough information to enable the user to decide which path they want to use, gain an idea of distance and understand what they might expect along the way. Orientation panels may also contain advisory information, see Chapter 3.

An orientation panel is also an advert for the paths and wider area. It, therefore, needs to be attractive, simple to understand, easy to read and accessible to as many people as possible.

Points to consider:

- Keep it simple - avoid adding descriptions of historic features, nature interest etc. Instead consider a separate interpretation board for this information
- Ordnance Survey type maps can be off-putting to some users as they usually contain a lot of detail which may not be necessary for the purposes of an orientation panel
- Use simple symbols or pictures to denote features like buildings, woodlands, facilities, etc
- Include distance of key routes / circular routes
- Provide information on terrain and other accessibility issues (see Chapter 3)
- Always provide a 'You Are Here' point and a 'North' point with arrow pointing north

Orientation panel with wood and metal frame

- Ensure panels are orientated correctly in relation to the site or the view, especially if using a map or a panorama
- Think about people with visual impairments - use contrasting colours and consider tactile surfaces for blind and partially sighted, who will need to be very close to read or touch the panel
- Consider how people will gain access to the panel. Surfacing around the panel should be level and well maintained for all users
- Be aware of UV degradation of panels. A UV blocking coating is recommended. Most manufacturers will be able to provide a UV blocking coating with a guarantee
- Locate panels where they can be seen, read and touched by people standing and in wheelchairs

Orientation panel with timber frame and roof

- Place panels within the accessible cone of vision. Information Sheet 6.7 provides distances for positions of panels within the cone of vision (objects must fit inside the cone of vision or else they become distorted)
- Panels positioned close to the ground should be tilted to sixty degrees (60°) to enable those standing, in wheelchairs or children to read easily
- A roof over an orientation panel enables users to read it in the dry, reduces timber decay and UV degradation of the panel. Ensure the underside of the roof is a minimum of 2100mm from the ground so that it is not a hazard for visually impaired users (Information Sheet 6.6).

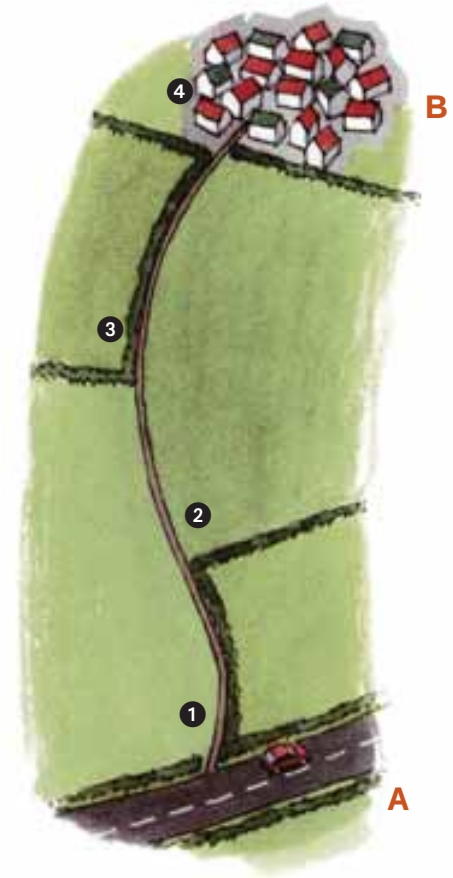
Information Sheets 6.5, 6.6, 6.7, 6.8 and 6.9 provide various designs for an orientation panel with either a timber or a steel frame, roofed or unroofed.

4.4 Location of directional signage

Location is one of the most important aspects of directional signing. If there is possible confusion with a sign or waymarker then it will not be serving its intended purpose. When considering a path network, different layouts may require different approaches. Examples 1 – 3 below demonstrate some common path network layouts and a suitable signage approach.

Example 1

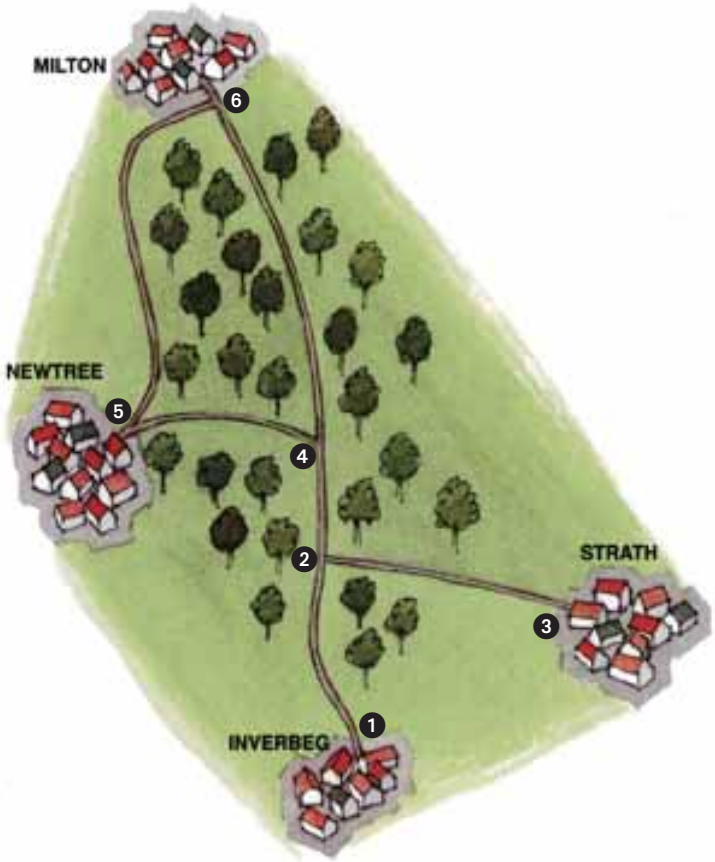
Simple A◄►B path



1. Finger post
2. Waymarker
3. Waymarker
4. Finger post

Example 2

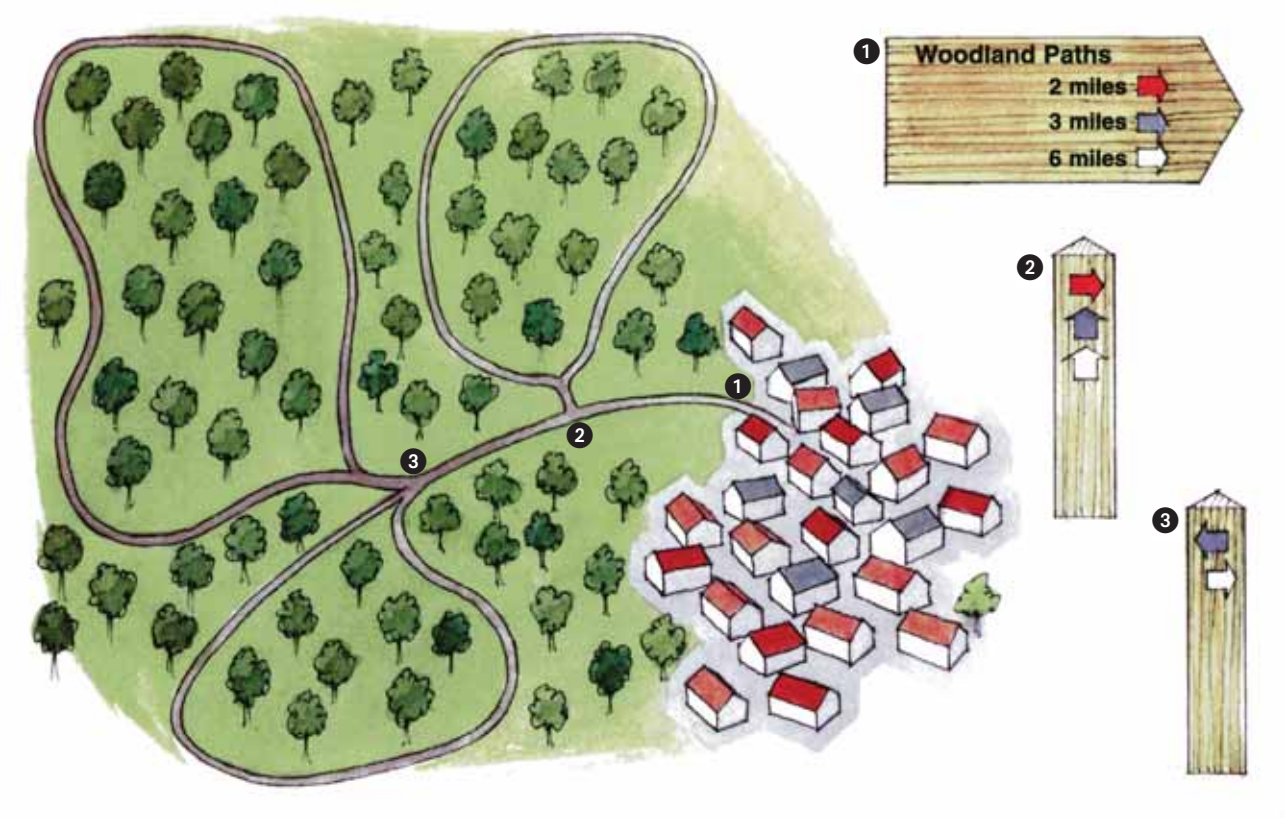
Path network with multiple destinations



1. Finger post
2. Waymarker
3. Finger post
4. Waymarker
5. Finger post
6. Finger post

Example 3

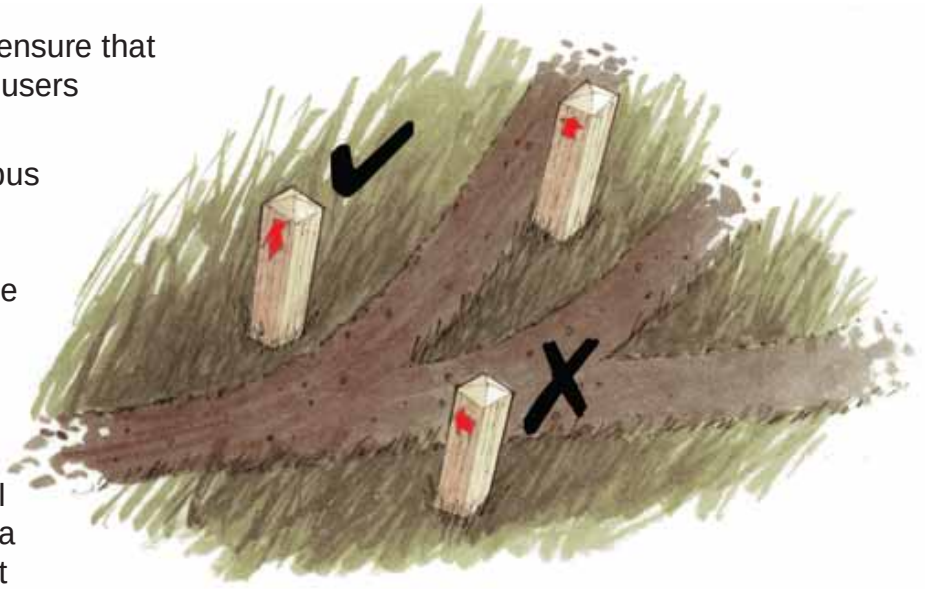
Network of circular walks in woodland with no particular destination



The wording and other information used on a sign must be checked on the ground to ensure it makes sense. Waymarking can only be properly assessed by using the route from all directions; thinking of all likely users and looking for areas of potential confusion. It is helpful to involve someone else who does not know the route as it can be difficult to assess directional signage needs when the route is well known to you.

Visibility

Think about the visibility of finger posts and waymarkers from the approach of the user. The diagram below shows the correct and incorrect positioning of a waymarker to direct people left at the first junction. The waymarker incorrectly positioned could be interpreted as pointing to either the first or second junction



Points to consider:

- At main access points ensure that the sign is visible to all users
- Is there an opportunity to position signs near bus stops, train stations or car parks? If yes, consider further signage from such facilities to encourage more users onto the path
- If an orientation panel is to be placed at a trail head, it needs to be in a noticeable spot, so that everyone entering the trail head area can see and reach it. If possible, arrange the trail head area with all paths starting adjacent to the orientation panel
- Remember that some paths may be used and approached from different directions and, therefore, should be signed and waymarked accordingly.

4.5 Directional signage for water users

The course of a river or canal will be easy to follow, but access and egress points may benefit from signage. Similarly it may be good practice to sign portage points around canal locks, or install signs that direct users away from unsuitable egress points and towards recognised egress points that are safer and easier to use. A good example is near Netherton Bridge on the River Blackwater in Perthshire. The original egress point signage had fallen down. Without a sign in situ, some canoeists were leaving the river immediately below the bridge and were faced with a steep scramble up a bank to get to a roadside gate. To resolve this problem, a new sign was installed just below the bridge stating 'Egress Point 60 metres', then after 60 metres another two signs were installed, simply saying 'Egress Point'. This egress point provides easier landing and the Scottish Canoe Association and landowner have worked together to install a flight of steps to improve access.

Chapter 5

Further Information

5

Chapter 5 Further Information

5.1 Contacts

Association of Deer Management Groups
www.deer-management.co.uk

British Association for Shooting & Conservation Scotland Centre
Trochry, Dunkeld,
Tayside, PH8 0DY
Tel: 01350 723226
www.basc.org.uk

British Horse Society Scotland
The Loaning, Auchengate,
Irvine, Ayrshire, KA11 5BH
Tel: 01294 270891
www.bhsscotland.org.uk

British Waterways Scotland
Canal House, Applecross Street,
Glasgow, G4 9SP
Tel: 0141 332 6936
www.britishwaterways.co.uk/scotland

Cycling Scotland
24 Blythswood Square,
Glasgow, G2 4BG
Tel: 0141 229 5350
www.cyclingscotland.org

Cyclists' Touring Club Scotland
Tel: 01556 670395
www.ctcscotland.org.uk

Deer Commission for Scotland
Great Glen House, Leachkin Road,
Inverness, IV3 8NW
Tel: 01463 725000
www.dcs.gov.uk

Fieldfare Trust
7 Volunteer House, Cupar, KY15 5AS
Tel: 01334 657708
www.fieldfare.org.uk

Forestry Commission Scotland
Silvan House, 231 Corstorphine Road,
Edinburgh, EH12 7AT
Tel: 0131 334 0303
www.forestry.gov.uk/scotland

Health and Safety Executive
Rose Court, 2 Southwark Bridge,
London, SE1 9HS
Infoline: 0845 345 0555
Publications: 01787 881165
www.hse.gov.uk

International Mountain Bike Association (UK branch)
Blackrig, Lochmaben,
Dumfries & Galloway, DG11 1RN
Tel: 01387 810774
www.imba-uk.com

Interpret Scotland
www.interpretscotland.org.uk

Historic Scotland
Longmore House, Salisbury Place,
Edinburgh, EH9 1SH
Tel: 0131 668 8600
www.historic-scotland.gov.uk

Mountaineering Council of Scotland
The Old Granary, West Mill Street,
Perth, PH1 5QP
Tel: 01738 493942
www.mountaineering-scotland.org.uk

National Farmers Union Scotland
Rural Centre, West Mains, Ingliston,
Midlothian, EH28 8LT
Tel: 0131 472 4000
www.nfus.org.uk

Paths for All
Inglewood House, Tullibody Road,
Alloa, FK10 2HU
Tel: 01259 218888
www.pathsforall.org.uk

Ramblers Association Scotland
Kingfisher House, Auld Mart Business Park, Milnathort, Kinross, KY13 9DA
Tel: 01577 861222
www.ramblers.org.uk/scotland

Royal National Institute of Blind People
12- 14 Hillside Crescent,
Edinburgh, EH7 5EA
Tel: 0131 652 3140
www.rnib.org.uk

Royal Yachting Association Scotland
Caledonia House, South Gyle
Edinburgh, EH12 9DQ
Tel: 0131 317 7388
www.ryascotland.org.uk

Scottish Anglers National Association
National Game Angling Centre,
The Pier, Loch Leven,
Kinross, KY13 8UF
Tel: 01577 861116
www.sana.org.uk

Scottish Canoe Association
Caledonia House, South Gyle,
Edinburgh, EH12 9DQ
Tel: 0131 317 7314
www.canoescotland.com

Scottish Countryside Access Network
www.scottishcountrynet.org

Scottish Disability Equality Forum
12 Enterprise House,
Springkerse Business Park,
Stirling, FK7 7UF
Tel: 01786 446456
www.sdef.org.uk

Scottish Interpretation Network
www.scotinterpnet.org.uk

Scottish Natural Heritage
Great Glen House, Leachkin Road,
Inverness, IV3 8NW
Tel: 01463 725000
www.snh.gov.uk

Scottish Orienteering Association
Glenmore Lodge, Aviemore, PH22 1QU
Tel: 01479 861256
www.scottish-orienteering.org

Scottish Rights of Way & Access Society (ScotWays)
24 Annandale Street,
Edinburgh, EH7 4AN
Tel: 0131 558 1222
www.scotways.com

Scottish Rural Property & Business Association
Stuart House, Eskmills Business Park,
Musselburgh, EH21 7PB
Tel: 0131 653 5400
www.srpba.com

Scottish Water Ski Association
Town Loch, Townhill,
Dunfermline, Fife, KY12 0HT
Tel: 01383 620123
www.waterskiscotland.co.uk

Snowsport Scotland
Hillend, Biggar Road,
Midlothian, EH10 7EF
Tel: 0131 445 4151
www.snowsportscotland.org

Sustrans Scotland
Glenorchy House
20 Union Street, Edinburgh, EH1 3LR
Tel: 0131 539 8122
www.sustrans.org.uk

Visitor Safety and Countryside Group
www.vscg.co.uk

5.2 Sign manufacturers & suppliers

Contact the local authority or National Park Authority Access Officers, who may be able to provide the names and contact details for sign makers and suppliers within your local area. Access Officer contact details are available from the Paths for All website: www.pathsforall.org.uk/outdooraccess/contacts.asp

Alternatively, Paths for All has a database of contractors, consultants and suppliers including signage manufacturers and suppliers, as well as contractors involved with the physical provision of paths. This database is available free and can be downloaded as a PDF from the website: www.pathsforall.org.uk/resources

Please note that the supplier details offered on the database do not represent an exhaustive list. Provision of these details should not be taken as any form of endorsement or recommendation by Paths for All.

5.3 Image and graphic acknowledgments

Page 13 - Scottish Rural Property & Business Association
Pages 14, 17, 26 and 64 - Scottish Rights of Way & Access Society (ScotWays)
Pages 29, 35, 51 and 70 - Cairngorms Outdoor Access Trust
Page 74 - Scottish Canoe Association
Page 48 and 53 - Forestry Commission Scotland
Page 84 - Fieldfare Trust (side elevation diagram)
Page 85 - Fieldfare Trust (cone of vision diagram and table)

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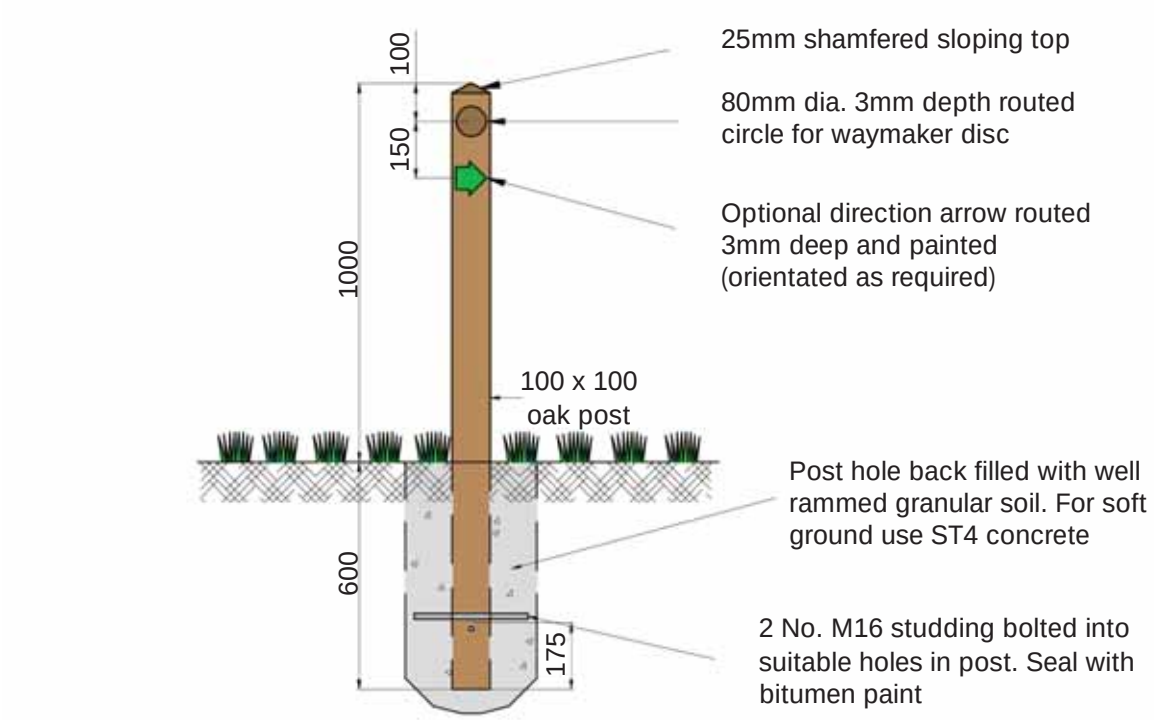
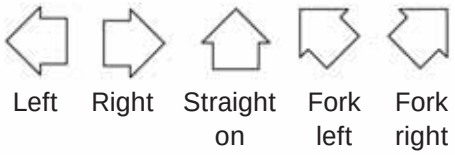
Chapter 6

Information Sheets

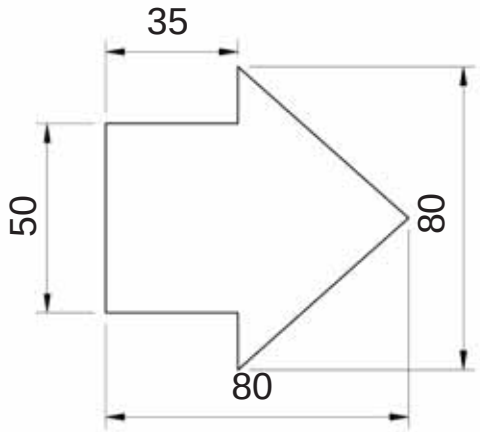
6

Basic timber waymarker post





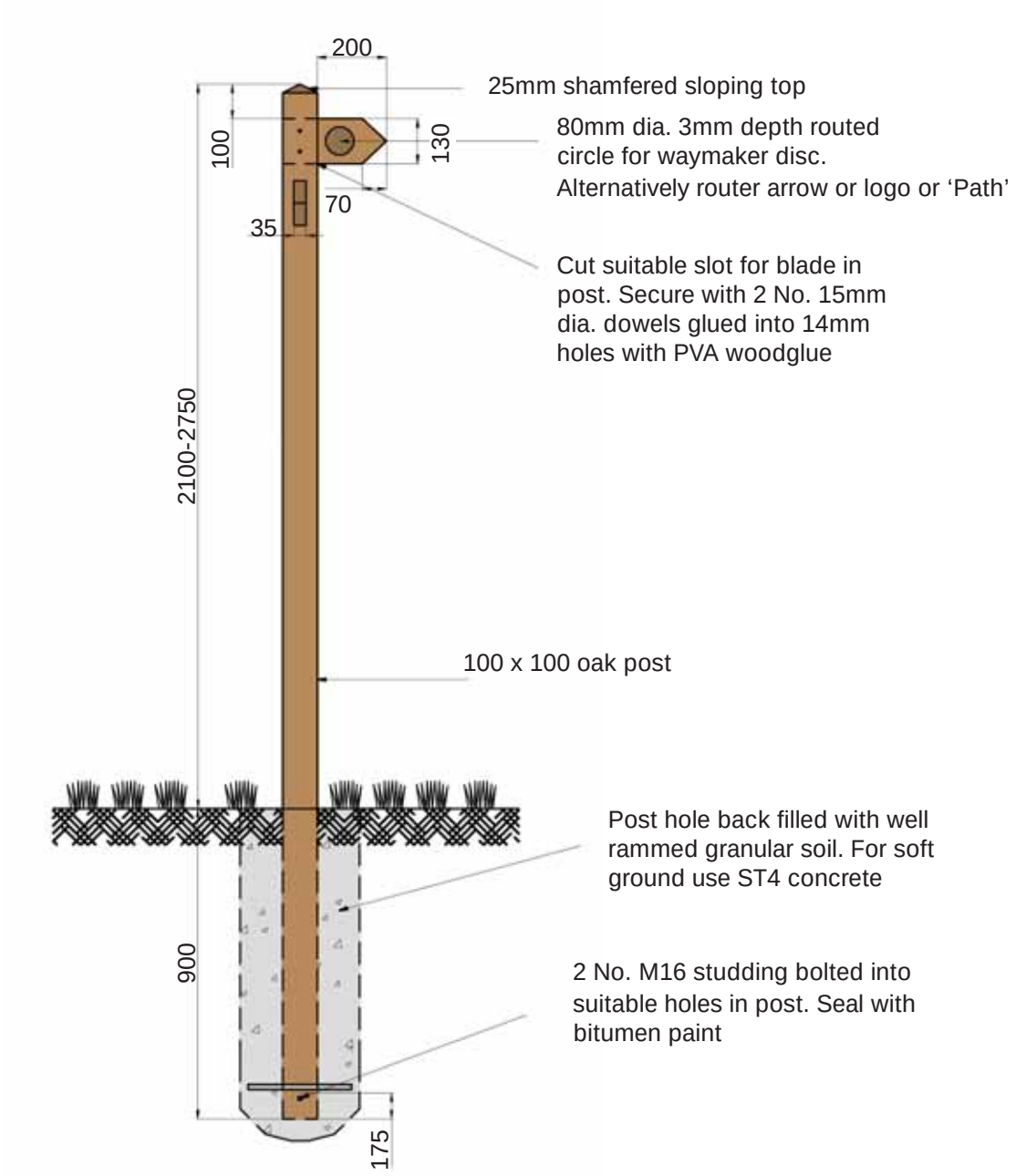
Arrow convention



Arrow detail

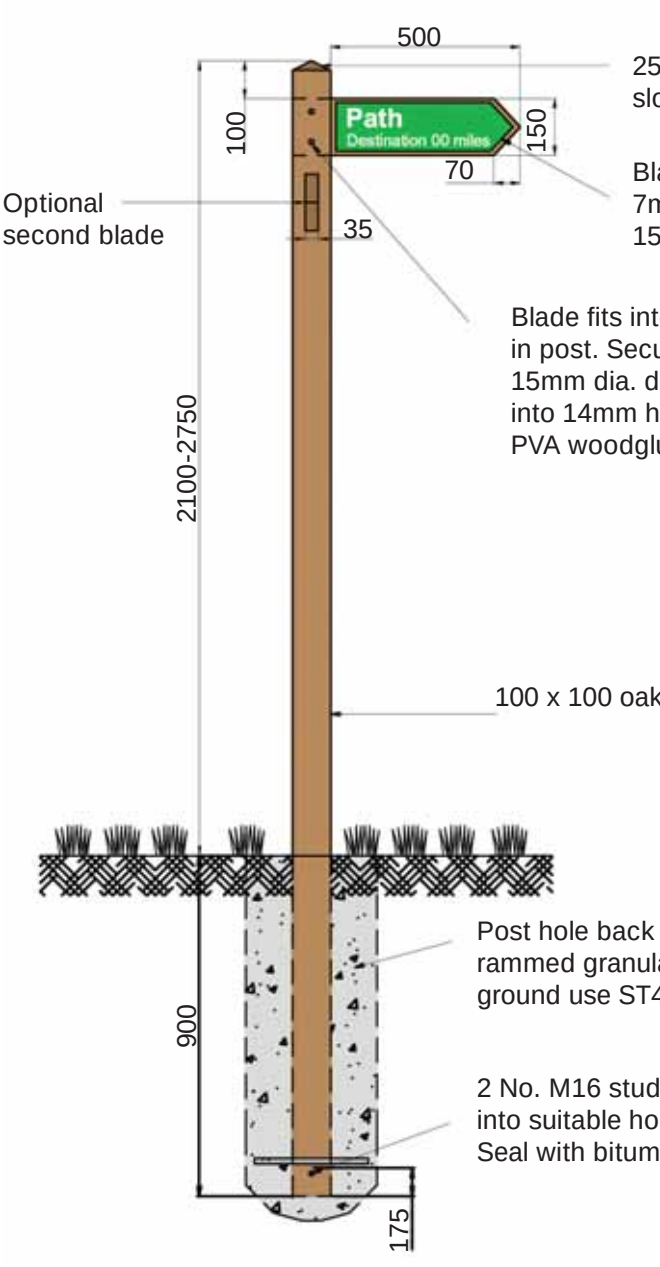
Dimensions in millimetres

Timber directional waymarker post



Dimensions in millimetres

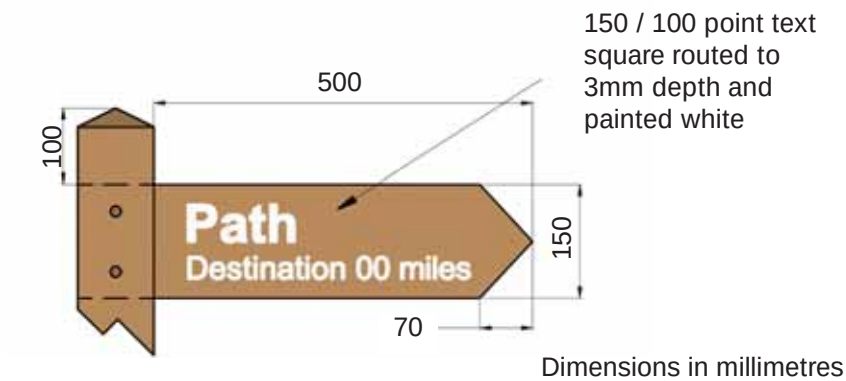
Timber finger post



Notes:

1. Sign plate 5mm thick GRP or aluminium to fit tight into routed blade recess and secured with epoxy resin
2. For high vandalism areas use M16 coach bolts instead of dowels
3. Insertion depth increased to 1000 for poles taller than 2500
4. Option to screw blades to face of pole if blade may interfere with path users.

Routed sign blade option

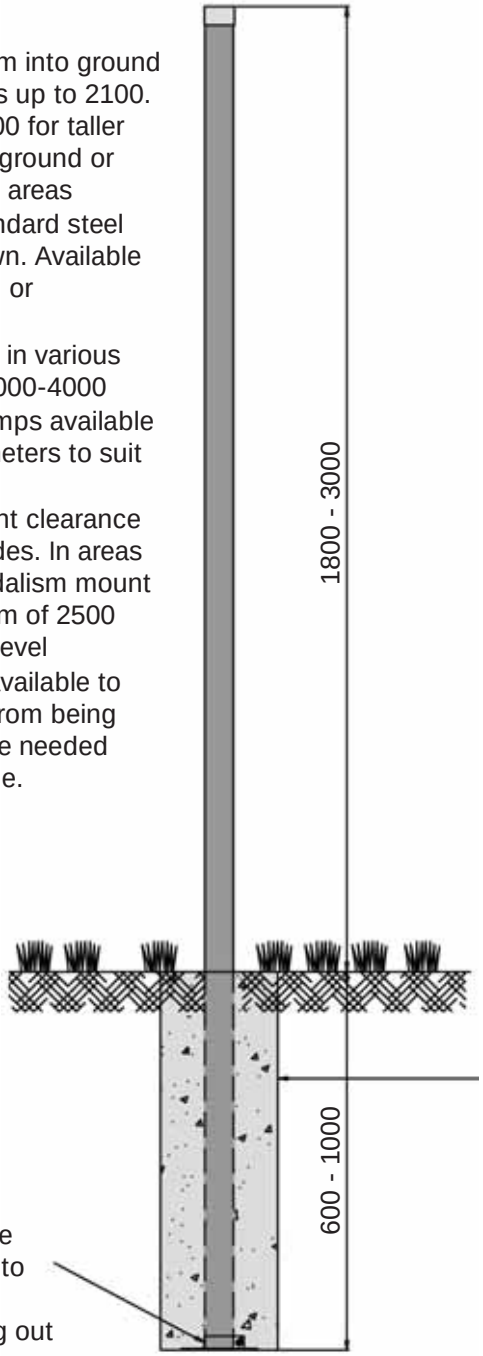


Dimensions in millimetres

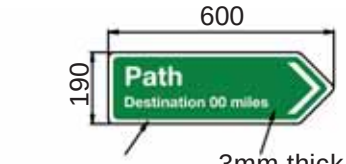
Standard steel finger post

Notes:

1. Set pole 600mm into ground for post heights up to 2100. Increase to 1000 for taller poles and soft ground or high vandalism areas
2. 75mm dia. standard steel road pole shown. Available powder coated or galvanised
3. Poles available in various lengths from 2000-4000
4. Sign blade clamps available in various diameters to suit different poles
5. Ensure sufficient clearance under sign blades. In areas subject to vandalism mount blades minimum of 2500 above ground level
6. Square poles available to prevent signs from being rotated but care needed to orientate pole.

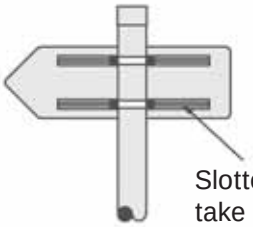


Single sided blades



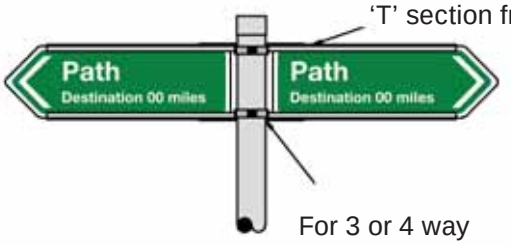
15mm white border

3mm thick dural sheet with vinyl panel and lettering



Slotted rails to take standard clamps / straps to attach to pole

Double sided blades



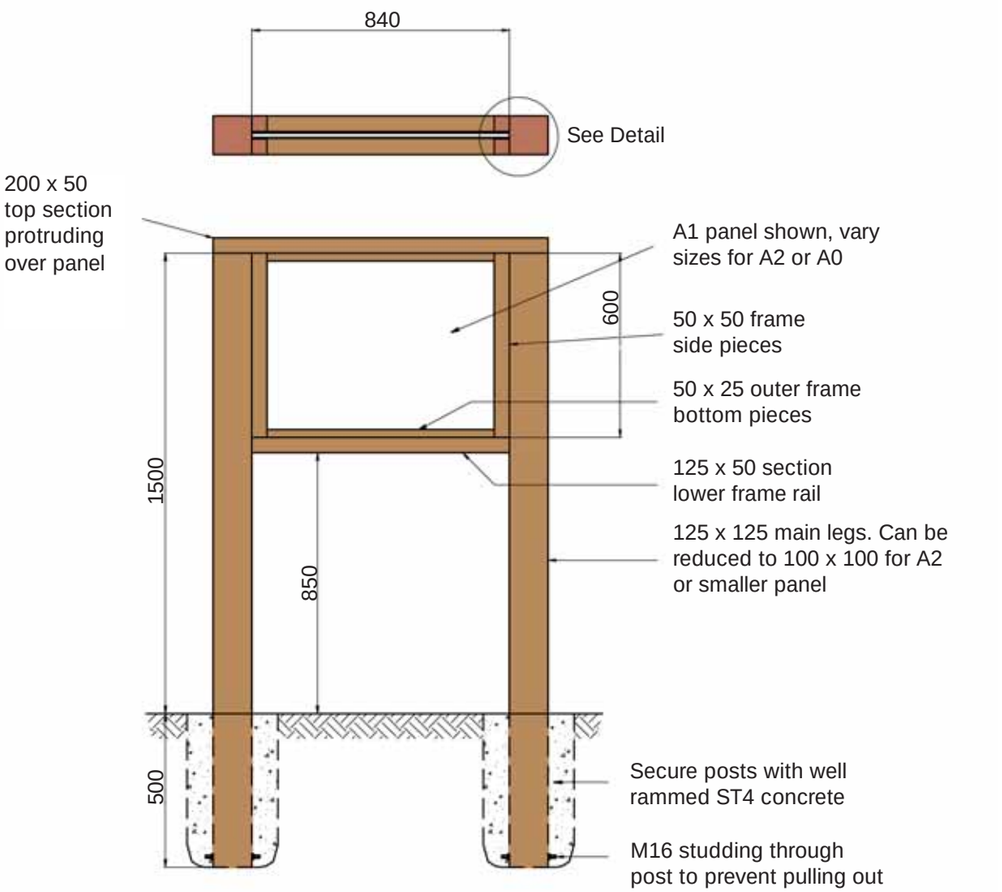
Sign riveted to 'T' section frame

For 3 or 4 way junctions mount extra blades above or below

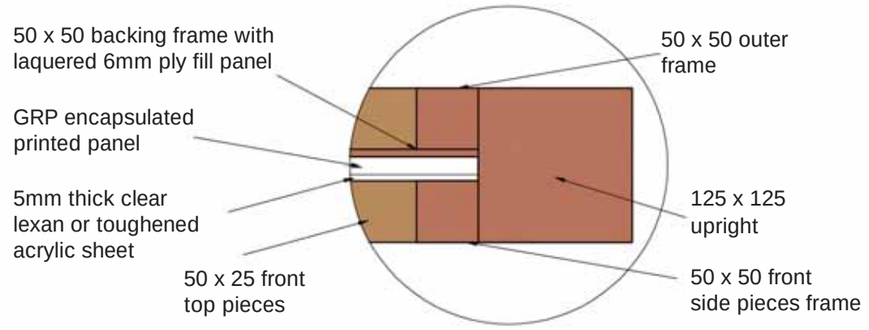
Dimensions in millimetres

Timber map panel frame

General Arrangement



Detail

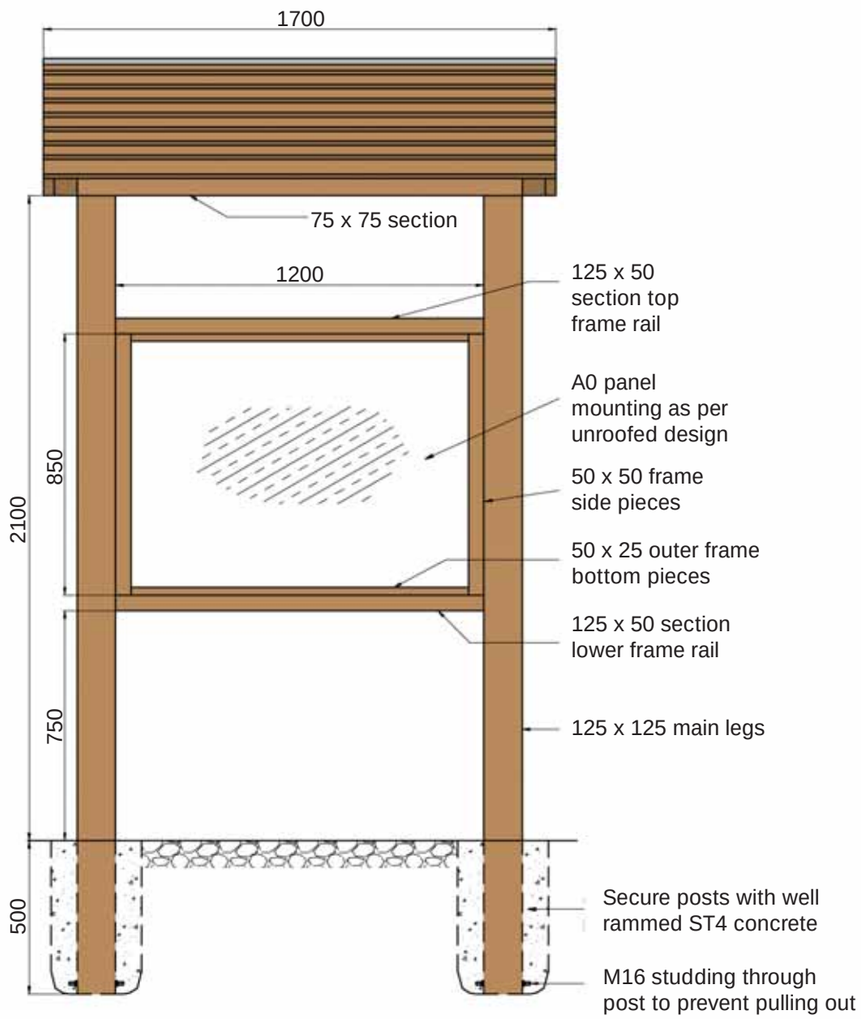


Notes:

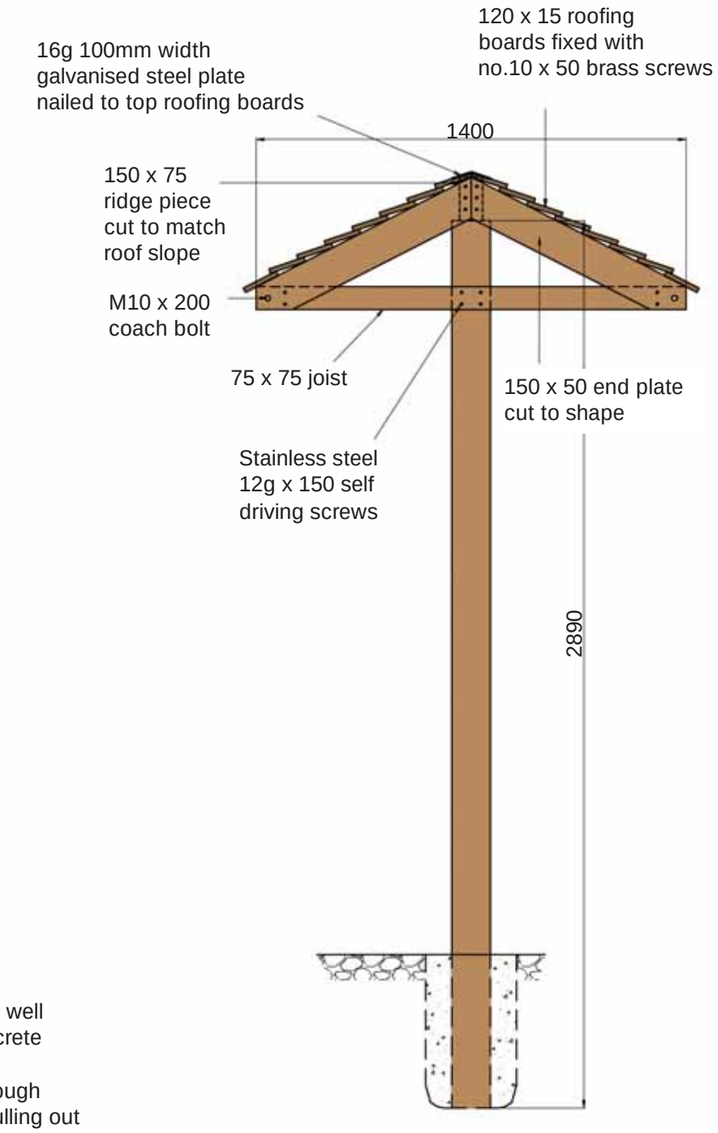
1. Use sustainable sourced timber. Oak for preference on main legs, alternatively douglas fir or larch. Treated soft wood may be used for frame, however, hardwood is preferable due to strength and durability
2. Front frame side sections are screwed to bottom rail with 12g x 85mm galvanised self driving screws. Frame is then screwed to main legs using similar screws
3. Clear lexan or toughened acrylic sheet is fitted loose into front frame, followed by printed panel and then laquered ply fill panel. Rear frame is screwed in place to fix panel firm. Use 6mm screws for rear frame fixing and dip in linseed oil prior to inserting to aid removal for panel replacement
4. Printed panel can be acrylic or encapsulated GRP
5. Top rail should protrude over front frame to prevent water from entering between clear acrylic / lexan sheet and printed panel.

Dimensions in millimetres

Timber map panel frame with roof



Front Elevation



Side View

© Fieldfare Trust

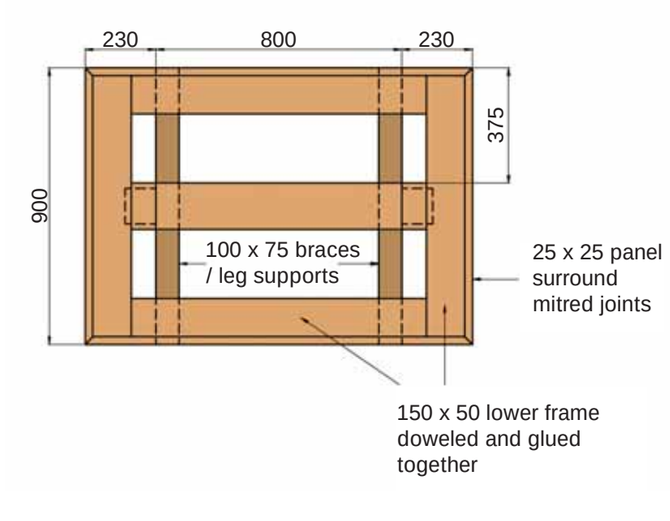
The roof should be a minimum of 2100mm from the ground so that it is not a hazard for visually impaired people

Notes:

1. Use sustainable sourced timber. Oak for preference on main legs, alternatively douglas fir or larch. Treated soft wood may be used for frame, however, hardwood is preferable due to strength and durability
2. Frame detail as per unroofed map panel frame (Information Sheet 6.5)
3. Roof is designed to provide shelter for people viewing panel
4. Use brass screws throughout or stainless where specified. If oak is used coach bolts to be stainless steel.

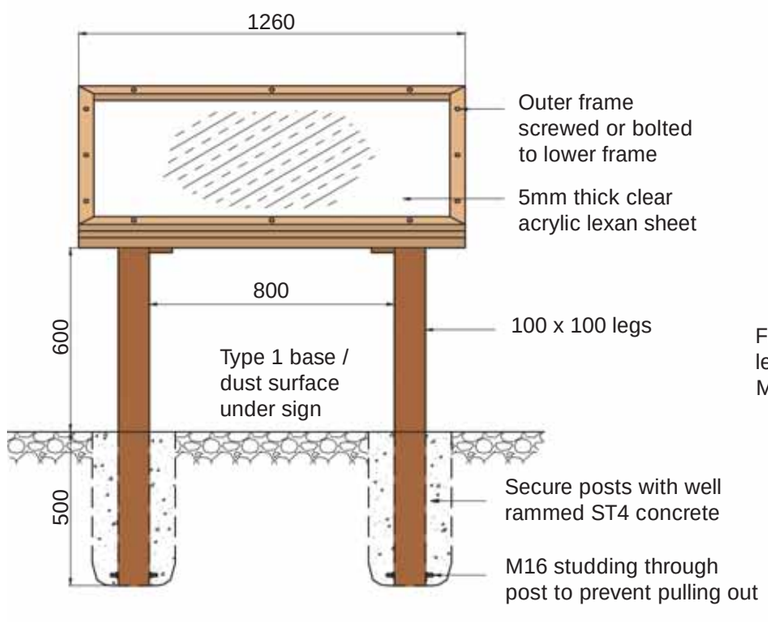
Dimensions in millimetres

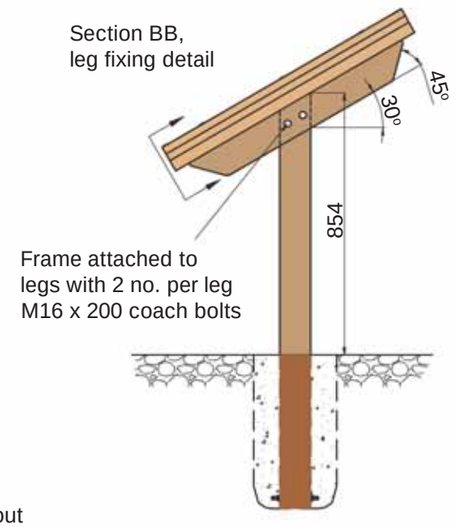
Angled timber map panel frame



Notes:

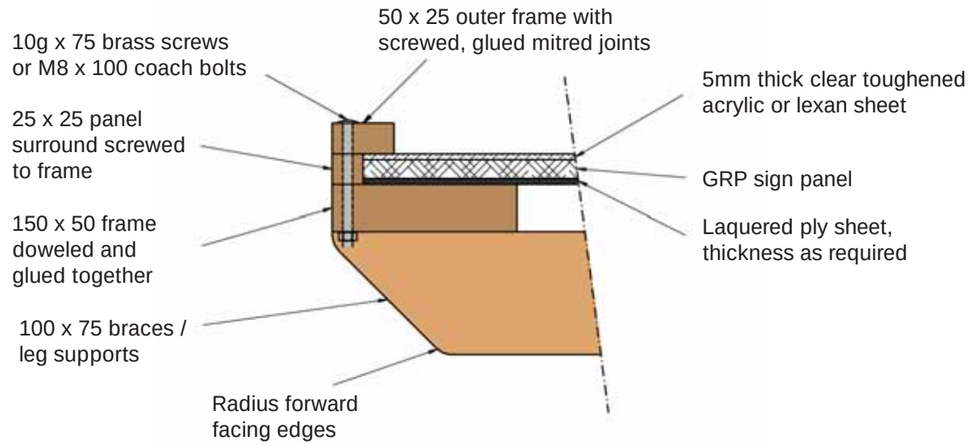
1. All timber to be sustainably sourced
2. Frame timbers refer to planed sizes
3. Main legs to be oak, if not available, use douglas fir or larch
4. Frame to be untreated hardwood or douglas fir / larch
5. Where specified screws to be 10 gauge brass or stainless steel self driving with manufacturers recommended penetration depth
6. Sand smooth all exposed timber edges
7. Bolt holes to have 1mm clearance
8. Nuts to have penny washers under heads. Chisel threads to prevent theft
9. If panel is to be quickly replaceable use stainless steel coach bolts. Otherwise use brass screws dipped in linseed
10. Lexan sheet sealed to outer frame with clear silicon RTV
11. Vary dimensions for smaller panels.

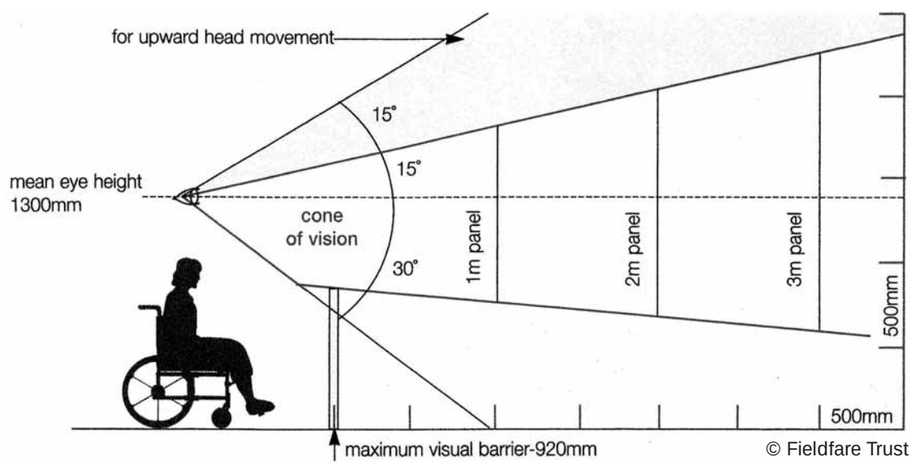




Dimensions in millimetres

Section AA, panel fixing detail



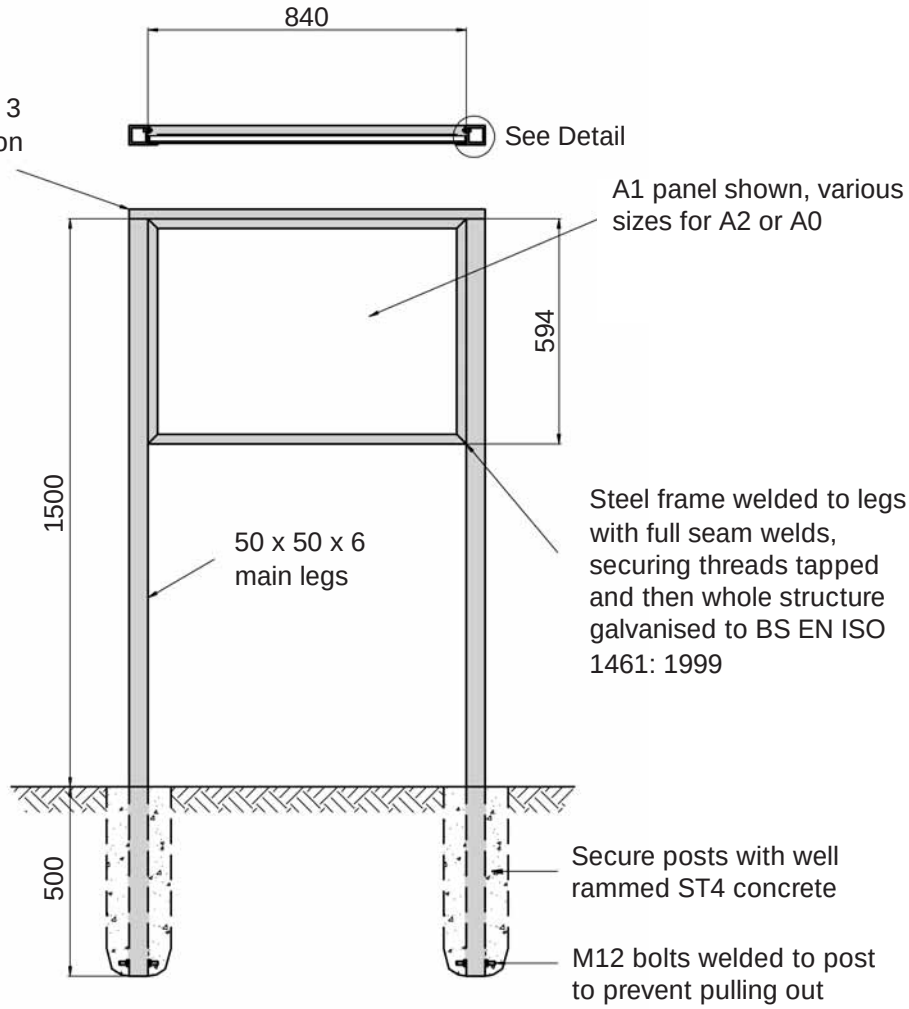


Position of panels / signs within cone of vision:

Viewing Distance	Lowest point not below	Highest point not above
1m	800mm	1850mm
2m	700mm	2150mm
3m	650mm	2400mm

Steel map panel frame

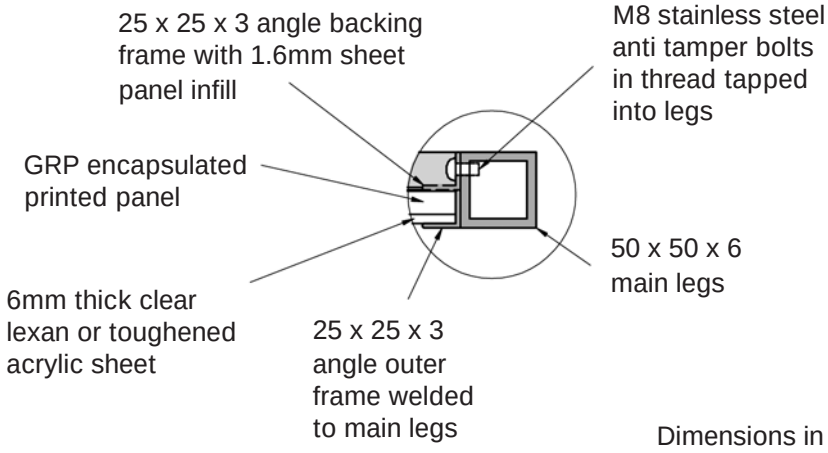
General Arrangement



Notes:

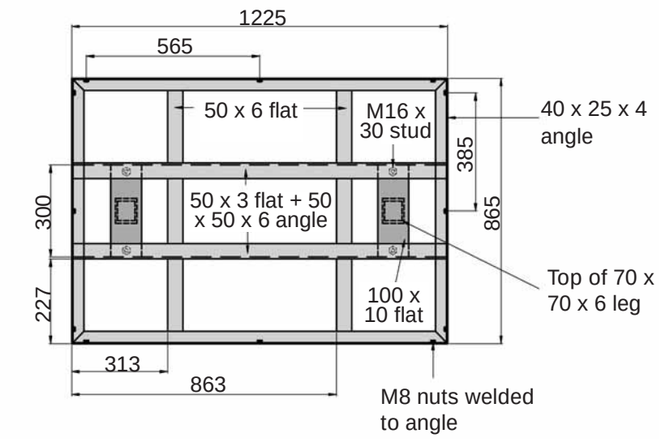
1. Front frame welded together with mitred joints
2. Front frame and top piece is then welded flush with main legs
3. Weld up rear frame, including sheet infill, and offer up to front frame
4. Drill and tap holes in main legs (3 x M8 per leg). Holes in frame to be slotted to allow adjustment back and forth
5. Galvanise front frame / legs in one unit and rear frame separately. Tap out excess galvanising from threads
6. Clear lexan / acrylic sheet placed in loose followed by printed panel, either printed acrylic or encapsulated GRP
7. Bolt in rear frame using stainless steel anti-tamper screws so frame is clamped firmly. Use copper grease on thread to prevent corrosion.

Detail

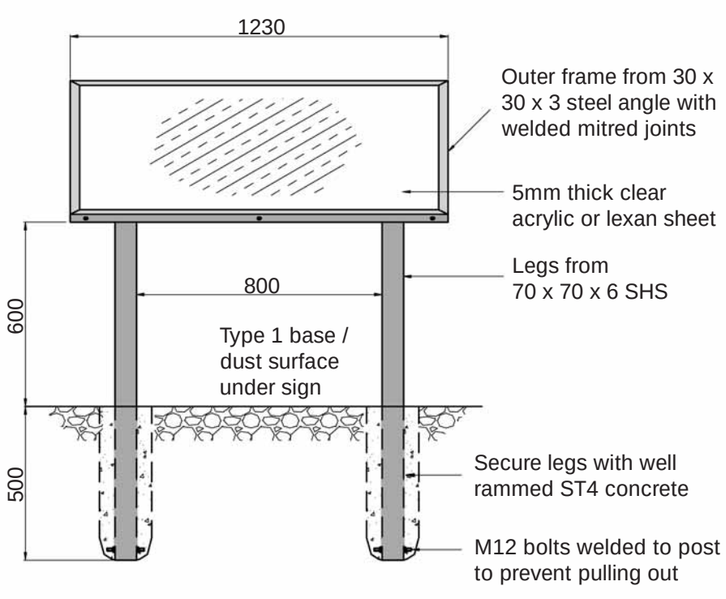


Dimensions in millimetres

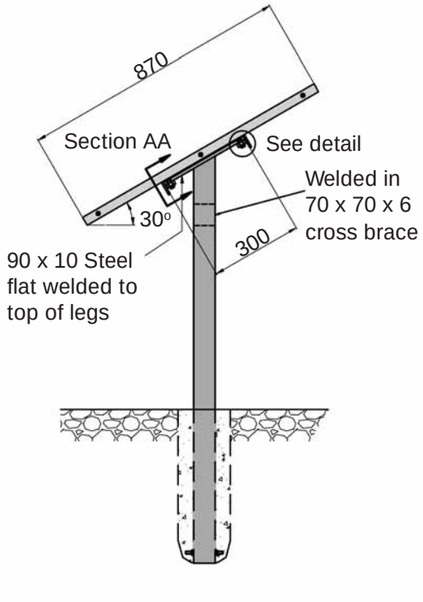
Angled steel map panel frame



Plan view of frame

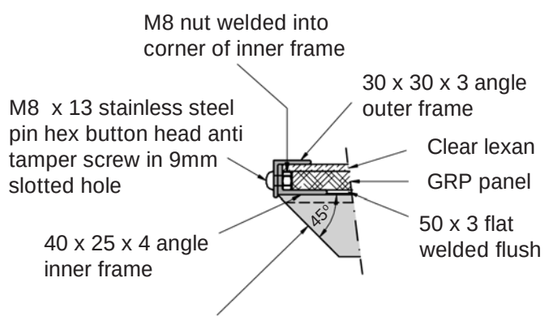


Elevation

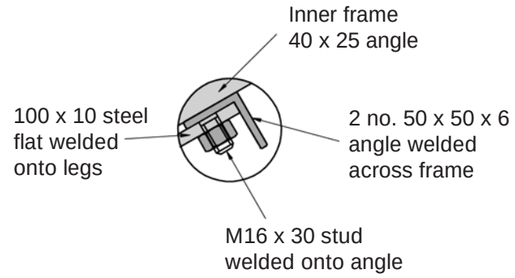


Side View

Section AA, frame bolting detail



Leg to frame fixing detail



Notes:

1. Weld up frames and legs, drill all holes then galvanise to BS EN 1SO 1461:1999
2. All welds full seam and ground smooth where appropriate
3. Check fit of frames prior to galvanising
4. Bolt holes to be 1mm oversized to enable easy fit
5. For different thicknesses of sign panel, pack out with acrylic sheet to ensure tight fit with upper panel
6. Seal clear lexan to outer frame with clear silicon RTV
7. Vary dimensions to suit different sized panels.

Dimensions in millimetres

Standard hazard warning signs

General Hazard
(add text below)

Drop / deep water

Unstable cliff / danger of falling

Falling rocks

Hidden drop

Trip hazard

Gradient warning

Width restriction warning

Actual size for use on a 100mm square post or 110mm wide sign template

Standard generic hazard warning sign

Add text into yellow box.

Can be used with other symbols.

Comparisons of sign materials

This information sheet shows the strengths and weaknesses of some materials used for sign manufacture which may help you choose the most suitable ones for your signs.

Timber

Strengths	Weaknesses
• Easily cut, carved and shaped • Easily treated and painted • Ages well • Blends with natural environments • Timber is easily carried to remote areas • Can be used for simple, functional signs as well as unique special designs • Generally acceptable in rural or urban environments • Timber can be sourced from imported sustainable sources or processed on site using a local source	• Easily vandalised • Detailed graphic carving difficult • Can be inappropriate adjacent to roads • Requires regular maintenance (e.g. retreating / repainting) • Will need replacement every 10 – 15 years depending on timber used and treatment applied • Treatment chemicals may be unsuitable for sensitive environments

- Oak, a hardwood, can make good quality and durable signs
- Larch, a softwood, is a durable timber without treatment (and cheaper than oak) but not particularly suitable for painting
- Douglas fir, a softwood, is a suitable timber for use (untreated) in well drained ground. It will provide reasonable durability
- Western Red Cedar, a softwood timber, becoming popular for making timber signs because of its characteristics; rich grain and vibrant colour, very durable (stays straight, less likely to twist and crack like other non-treated or treated timbers), long lifespan (contains natural oils acting as preservatives that help the timber to resist insect attack and decay), and safe for use in sensitive environments (non-toxic and requires no chemical treatments)
- Treated soft wood signs are cheaper than hardwood signs to manufacture but their durability is not as good. Take care, treatment chemicals can leach out making treated soft woods not particularly suitable for use in sensitive environments or near water
- The often wet ground conditions in Scotland can reduce the lifespan of timber posts considerably. Consider ‘shoes’ or metal ‘pegs’ that keep the timber out of the rotting zone
- Where oil based stains or paints are used to dress timber signs, if the treatment primer seal is damaged the outdoor elements can lead to timber deterioration.

Metal

Strengths	Weaknesses
• Black and white photos can be reproduced • Good for detailed graphics • Looks good in urban areas • Provides great scope for interesting design • Fading and discolouration resistant • Robust and vandal resistant • Durable and low maintenance (if galvanised finishes or stainless steel is specified) • Use of recycled steel makes it 'greener' than previously • Powder coated metal will not fade, peel or crack like painted metal • Aluminium or aluminium alloy does not rust and can be powder coated • Bent aluminium alloy can be reshaped and will not rot, unlike timber	• Can be expensive to duplicate • More expensive than wood • Can be seen as inappropriate in rural areas • Needs extra coating or film to depict wording or images • Can reflect bright sunlight • Metals such as stainless steel and aluminium are prone to theft for their scrap value • Painted metal surfaces may fade, peel or crack • Green and blue powder coated metals can fade in direct sunlight • Bright aluminium is reflective making small signs difficult to see

- Specify galvanised finish for steelwork and powder coating if colours are required
- Use stainless steel fastners to aid replacement
- Use anti tamper bolts in areas subject to theft or vandalism.

Stone

Strengths	Weaknesses
• Easily maintained • Good for detailed line art and black and white images • Suitable for a range of environments including wild land • Can make use of available stone on site, if suitable (low cost option) • Vandal and weather resistant	• If stone is not available on site it can be expensive to buy and import to site • Skill is needed to construct • Natural contours may make reading words difficult

Stone (continued)

- Can be incorporated into other site features to reduce 'clutter'
- Provides opportunities for innovative signs that become great features on a route
- Bolt panels to stone using expansion bolts
- If stone carving is required, ensure stone is of a suitable hardness. Specialist stone suppliers will provide advice on different stone harnesses and the ease of working.

Recycled plastic

Strengths	Weaknesses
• Environmentally friendly option – 100% recycled and 100% recyclable • Suitable for a wide range of environments • Long lifespan: least 40 - 50 years unlike timber • Very durable, solid and hardwearing • Will not rot, split or splinter • Impervious to water and frost • Impervious to fungi, moss and algae growth and insect attack • Virtually maintenance free – low revenue costs • No treatment or painting – no leaching of chemicals into soil or water • Fade resistant – most recycled plastic types are UV stabilised to resist sunlight damage • Appearance – can remain clean and looks very similar to painted timber	• Expensive • Physical properties and colour of recycled plastic materials are variable – heterogeneous • Can expand and contract more than timber • Can bend or soften in hot weather • Heavier than dry timber of the same size • Relatively few sign makers have experience of working with recycled plastics • Flammability – issue with some recycled plastic types (low density polyethylene). Attempts to light it could be an issue in some urban areas where vandalism is common

- There are two main types of recycled plastic: low density polyethylene (LDPE) or high density polyethylene (HDPE). LDPE is the less expensive and most common material available. However, it is much softer and more flexible than HDPE. HDPE being the more expensive material, supplier sources can be difficult to find (mainly European). There are some small producers in the UK
- Recycled plastic can be mixed or reinforced with other materials. Sawdust is the most common material. A 50:50 plastic and sawdust material will take paint or stains in a similar way to timber. However, composite materials can be more brittle than 100%

plastic. Steel sections or glass fibres can be introduced to reinforce plastic in order to improve its structural strength

- Recycled plastic is purchasable in a number of structural forms: ready moulded, standard profiles and lengths, and custom made moulds. For large signage projects requiring a specific profile or shape, a custom made mould could be an economically viable option.

Glass reinforced plastic (GRP)

Strengths	Weaknesses
• Comparatively light • Fairly strong and long lasting • Cheap to make replacements • Good for detailed graphics • Can be made into different shapes and sizes • Wide range of colours available • Weather resistant • Vandal resistant – high level of impact resistance and easy removal of graffiti	• Colours can fade over time

- GRP is a composite or fibre reinforced material made of a plastic reinforced by fine fibres made of glass to increase strength and stiffness. It is commonly referred to by the names ‘fibreglass’ or ‘glass fibre’ because of its reinforcing fibres. The plastic is thermosetting (chemical reacting), most often of polyester, vinylester or epoxy resin. The glass is mostly in the form of chopped strand matt but woven fabrics are also used
- A sign or panel design is digital or screen printed onto special paper which is then embedded in the GRP; or alternatively the design is printed in gel coatings, resulting in a finish identical to a fibreglass structure
- Digital printing is a flexible process that enables the reproduction of full colour graphics. The sign or panel design is printed onto paper which is then encapsulated or encased in glass reinforced plastic
- Screen printing involves the application of each ink separately onto paper or directly onto the sign or panel surface
- Printing is carried out using fade resistant colours capable of producing fine details.

Hazard management (worked example)

Consider an informal coastal path along the top of a large cliff. This hazard is obvious, natural and typical of this environment.

Here are the options in order of priority to consider in this situation:

Hazard = High cliff next to path route.

Risk = High – if people fall off the cliff serious injuries or death could result.

Option 1 – Route path away from cliff

Pros	Cons	Conclusion
Avoids hazard	People want to walk along the cliff top for views and so may move off the path towards the hazard. It may not be possible to move the path	This may be a reasonable option if the cliff is eroding, a cliff top path is not sustainable or if there is a reasonable alternative available. However, it is not a desirable option so other solutions should be considered

Option 2 – Fence off the cliff

Pros	Cons	Conclusion
Isolates the hazard from users, does not require extra land	May be expensive, visually intrusive, high maintenance	This could be practical for short lengths where the path is very close to the cliff edge and there is no room to move it. However, this may not be a reasonable option for the whole cliff path due to the high cost and visual intrusion

Option 3 – Provide warning information to users

Pros	Cons	Conclusion
Draws attention to the hazard and enables users to make a judgement as to whether they use the area. Some simple signage could be effective and non intrusive	The hazard still exists so an accident may happen, signs may be seen as intrusive and unnecessary	A simple option that needs careful consideration but is a reasonable approach to a promoted path along the cliff top. Careful design and locations of signs will be essential

Option 4 – Do nothing

Pros	Cons	Conclusion
Cheap and easy	The hazard still exists and no attempt has been made to inform people of its presence	A reasonable approach if the hazard is obvious and the path is stable. Suitable for many situations

Overall solution

This will depend on the exact circumstances but in many cases a combination of the above options may be used.

If the path is informal and only used by local people and an occasional visitor, then the 'do nothing' approach may be acceptable. However, there should still be an audit trail to show that this conclusion has been arrived at after a process of assessment and judgement.

If the route is being promoted, then a combination of the other options may be necessary, depending on the site. Going through a process of assessment and judgement with consideration for all options will usually lead to an effective solution.

- Use signage to warn users of the cliff and include warning advice on leaflets, websites and orientation panels
- If cliff edge is eroding or obscured by vegetation, reroute the path away from the cliff edge if land is negotiable
- Consider fencing as a last resort, only for sections of the cliff that are eroding or right beside the path, and no land is available to re-route the path away from the cliff edge.

This process is essentially a risk assessment which enables good judgement and effective approaches to hazard management to be demonstrated.

Glossary

1960 Act: Occupiers Liability (Scotland) Act 1960

Access authority: The 32 local authorities and 2 National Park Authorities in Scotland that have statutory access duties under the Act

BS: British Standard

DDA: Disability Discrimination Act 2005

DED: Disability Equality Duty

FCS: Forestry Commission Scotland

GRP: Glass Reinforced Plastic

OS: Ordnance Survey

RNIB: Royal National Institute for the Blind

SCA: Scottish Canoe Association

ScotWays: Scottish Rights of Way and Access Society

SDEF: Scottish Disability Equality Forum

SNH: Scottish Natural Heritage

SRPBA: Scottish Rural Property & Business Association

the Act: Land Reform (Scotland) Act 2003

the Code: Scottish Outdoor Access Code

The Paths for All Partnership is a recognised Scottish Charity No: SC025535 and a Company Limited by Guarantee No: 168554 incorporated 19 September 1996 at Companies House, Edinburgh.
Registered Office: Inglewood House, Tullibody Road, Alloa FK10 2HU.

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