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The Centre for Excellence in Universal Design

The Burren & Cliffs of Moher GeoPark LIFE Project
Universal Design Workshop, Ennis 25.01.16

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Burren and Cliffs of Moher GeoPark
People. Place. Learning. Livelihood.

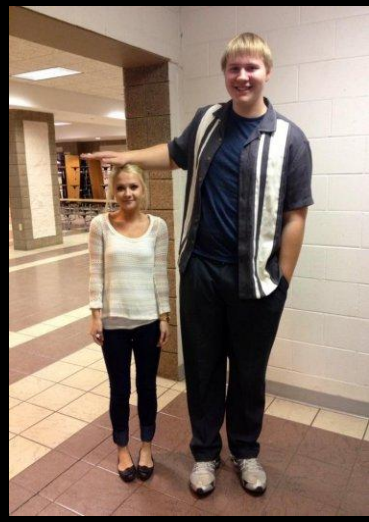
Parks, natural landscapes & visitor sites are designed / provided for who?

Or rather who should they be designed for?

People of different ages, size, abilities or disabilities i.e **Everyone**

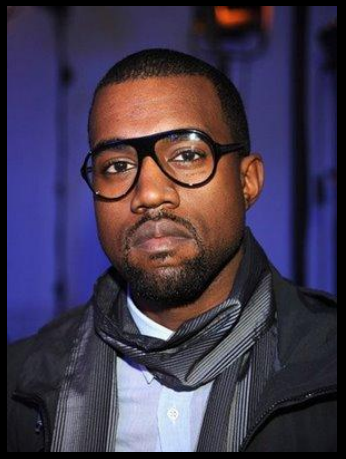
Age

Size



Ability

Disability




NOT SURE IF HUNGOVER...
OR DYING


BLIND SKIER
THANK YOU VAIL RESORTS


THE LEFTORIUM
LEFT POWER
LORD LOVE A LEFTY
C'MON IN!


This is what disability looks like
Elected

Universal Design Assumes;

Every person experiences barriers, reduced functioning, some form of disability – temporary or permanent – at some stage in life

USDA Accessibility Guidebook for Outdoor Recreation and Trails

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Natural environments include places such as peatlands, mountains and beaches that are largely untouched by human intervention, apart from the addition of discreet footpaths, signs, and possibly gates or enclosures.

Tempered landscapes include places such as country parks, cemeteries, waterways, and golf courses, which retain much of the landscape's original form, but have been formed and controlled over time by the people who oversee the activities there.

Tamed landscapes include facilities such as playgrounds, urban parks and city squares, all of which have been designed and created to provide specific amenities in a controlled environment.

Examples of natural landscapes

Whilst it may not seem easy or necessary to make a mountain path or beach accessible to a person using a wheelchair or a stroller, for example, the underlying consideration should always be to provide universal access. This approach maximises opportunity for people of diverse abilities to access and enjoy the landscape.

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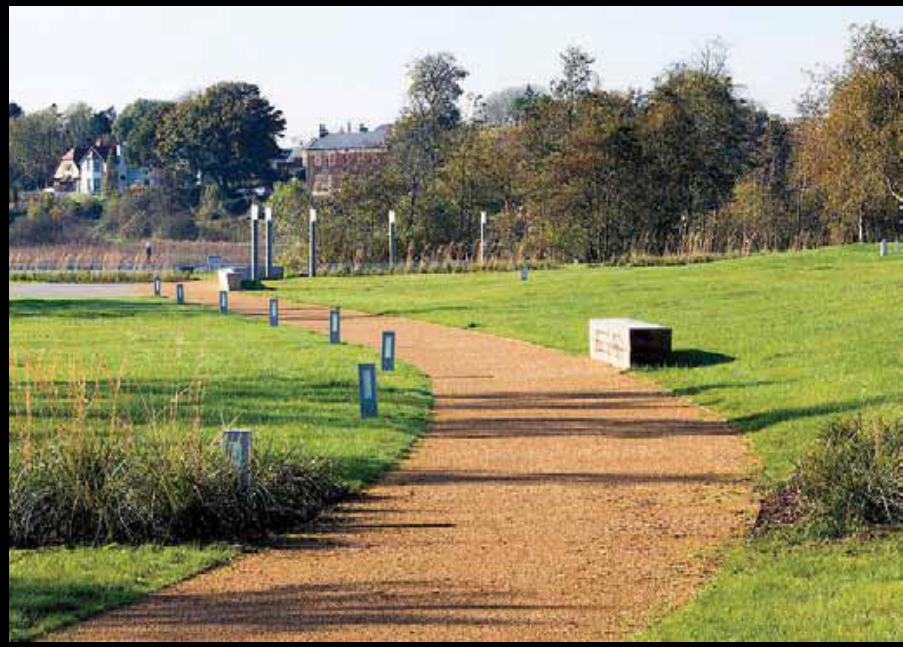
Example of a tempered landscape and a heritage site

Further interventions have been made in these landscapes, on a more detailed scale, such as the creation of rights of way, gates, fences and signs, all of which facilitate access across the terrain.

These features should be universally designed and provide the maximum opportunity for everybody to enjoy, experience and partake in outdoor activities. Tempered landscapes typically also have buildings associated with them such as interpretative centres, public toilets and cafés. These should all be universally designed

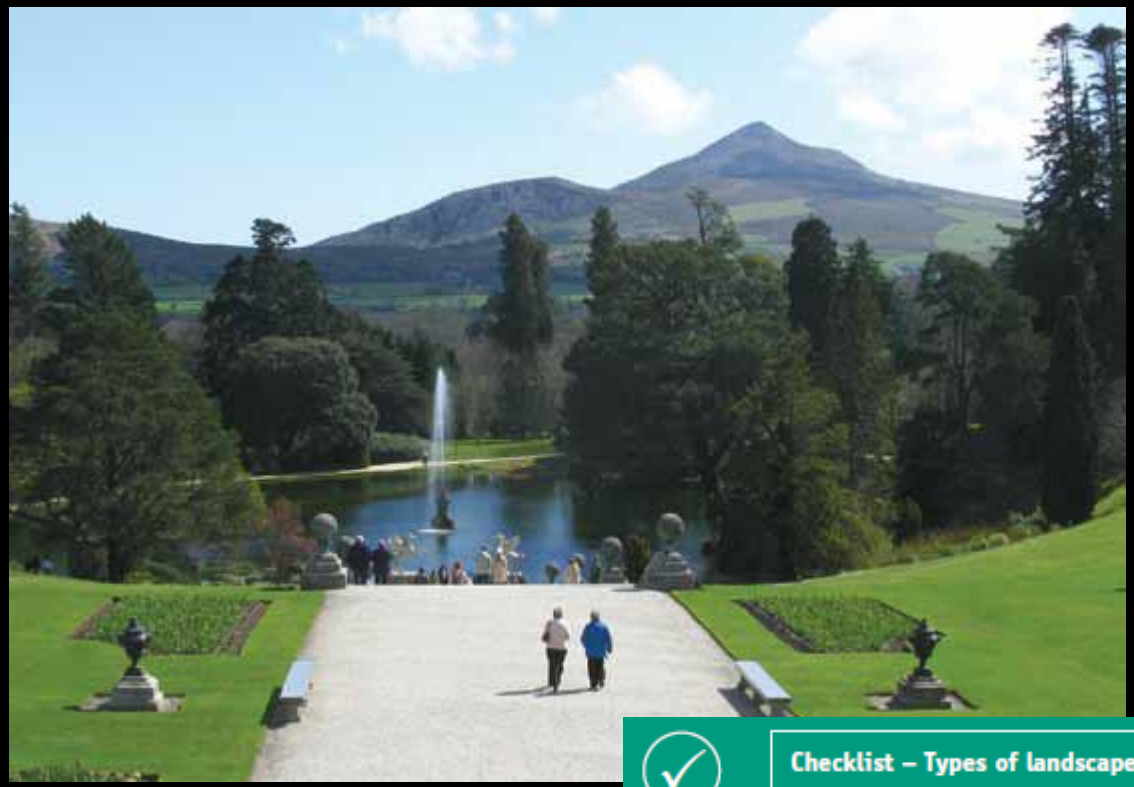
Examples of Tamed landscapes



The natural and tempered landscapes are commonly visited by choice and characteristically involve a degree of challenge. By contrast, it is necessary for everyone to negotiate the public spaces in villages, towns and cities in order to carry out daily activities.

Such places should not therefore present a challenge to access or use, and it should be possible for everybody to enjoy the spaces with the highest level of independence.

Example of Tamed landscape and Heritage site



Checklist – Types of landscape

- Where alterations are planned or new facilities provided, ensure that accessibility is maximised.
- Avoid the creation of new obstacles when changes are made to an environment.
- Ensure existing routes and facilities are well maintained at all times.
- Ensure all buildings associated with outdoor environments are accessible to all.

Mountains pose many difficulties for people who wish to access them, yet this is often the motivating force for people to try. Whether people are mountaineering, hill walking, orienteering, or undertaking a pilgrimage, reaching the destination and arriving safely back is a satisfying experience.

Consideration should be given to universal access, even in remote places, to ensure that a right of way is not blocked by a cattle grid, for instance, or that signage offers clear information. These are often issues for land managers, who should ensure that rights of way are maintained.

Age, Size, Ability and Disability...
How do people make their way
in landscapes such as this?

Can we make it easier for them?

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Checklist - Changes in level

- Ensure the routes between site entrance and building entrance, or from the on-site car park and between buildings is accessible.
- Consider the design of routes and levels at early planning stages.
- Design access routes so they are understandable, easy to use, and offer choice.
- Provide inclined routes with a gradient between 1 in 33 and 1 in 25 with level landings at regular intervals.
- Ensure ramped and stepped routes are clearly visible or well signed.

People access all forms of landscape in two ‘ways’, the most obvious is for the purpose of making a particular journey or visit or for recreation. It is important that people regardless of age, size or disability can access and enjoy the landscape and outdoor amenities, and be able to share in outings with family or friends.

To facilitate access to outdoor environments, people should be able to access information about a place so that they can prepare, assess potential challenges, and make their own informed choices.

Information should be available in the form of published guides, via the internet and via helplines or tourist information centres. Information should always include references to accessibility and any facilities provided.

Where maps are provided, they should illustrate path gradients highlighting steep paths, and other challenges such as gates or uneven surfaces as well as facilities such as car parking areas, toilets, and information displays.

Checklist - Design issues

- Consider access routes, levels, gradients and site layout at earliest design stage.
- Locate car parks and access routes to promote safety and convenience.
- Ensure pedestrian environments are logical and clear to understand.
- Match dished kerbs on opposite sides of the road at crossing points.

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In external environments, signage and information should be provided to enable people to clearly understand the layout and function of a space or environment and to find their way around independently.

Signage and information should be usable and informative to everyone and include information in visual, tactile, and audible formats. It should be simple and easy for everybody to understand.

All signs and information should be clear, consistent and unambiguous. Messages and directions should be concise and use familiar words, symbols and language. Information that is too complicated or that uses unfamiliar language 55 or terminology is likely to be difficult for some people to understand.

The over-provision of signage and the use of very complex signs should be avoided as they are likely to cause confusion and will be of minimal benefit.

Clear signage is particularly valuable for people who may have difficulty communicating and for people who prefer not to have to ask for directions. Signs incorporating pictorial symbols are beneficial for people who have learning disabilities, people who have difficulties reading text, and for people who are not familiar with the English language.

Legibility is a design concept which makes it easier for people to work out where they are and where they are going.

Not only does it minimise the length of journeys by avoiding wrong turns, for some it may make journeys possible to accomplish in the first place. It should considered as part of public realm design and in its simplest form is based on movement relative to fixed points within the environment.

Elements such as landmark buildings, natural features, clear sightlines and vistas in conjunction with signage and information contribute towards legibility and perform important functions for wayfinding, particularly for people with cognitive difficulties.

Doolin, Co. Clare 20111 (c) Roger Smith

Roger Smith + Follow

Ireland, County Clare - Doolin, multiple road signs

PRO

Multiple road signs at Doolin in County Clare in Ireland

John faved this

Sherwood Harrington PRO 2y

Holy smokes! This beats the more famous plentitude of signs over in Ballyvaughan (28 kilometers away, it says here on one of these Doolin signs).
www.flickr.com/photos/sherwoodh/galleries/72157623028631150/

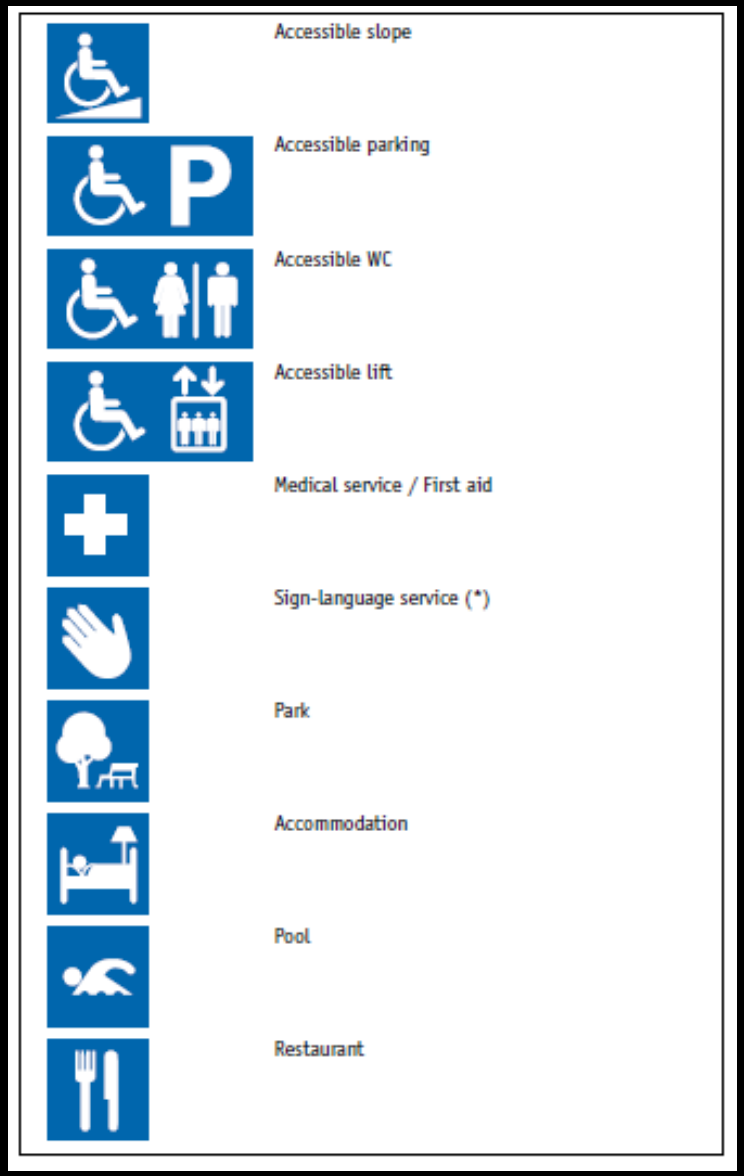
John 2y

I would turn... er... right! Looks like there more going on that way!!! Amazing!

=

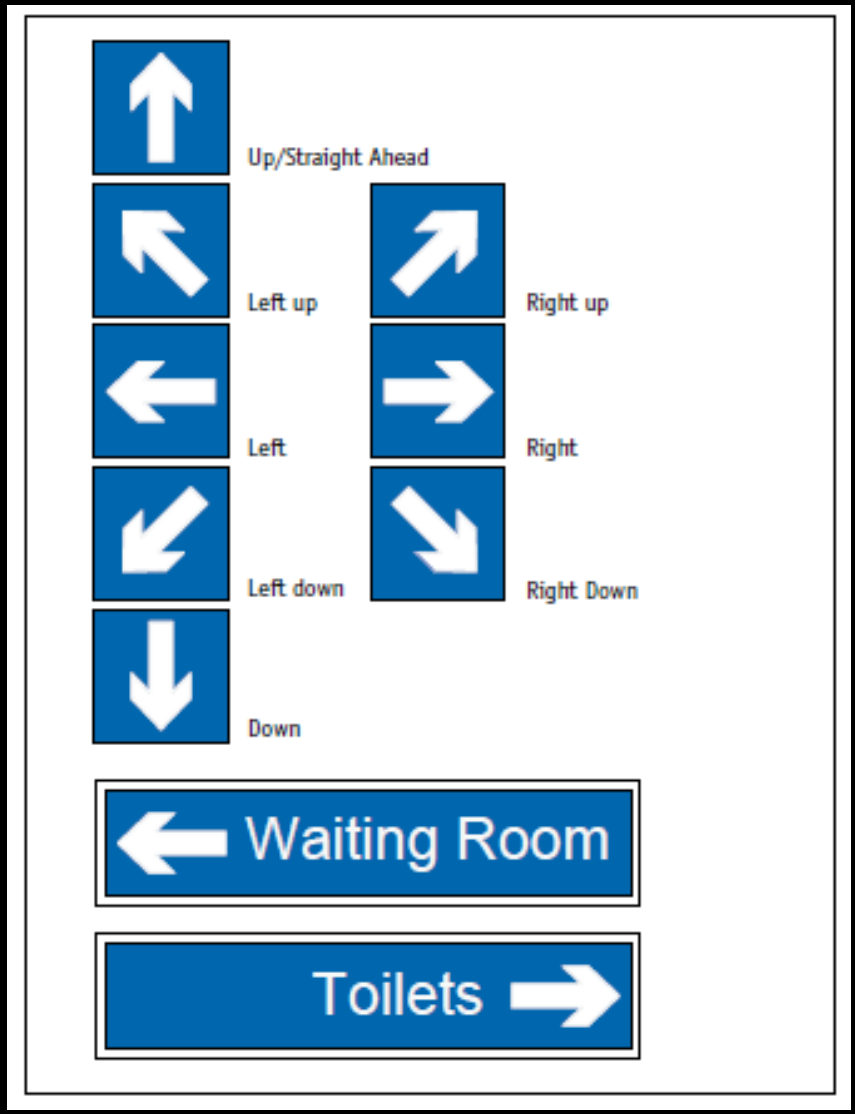
Ballyvaughan, Co. Clare

Examples of standard public information symbols.

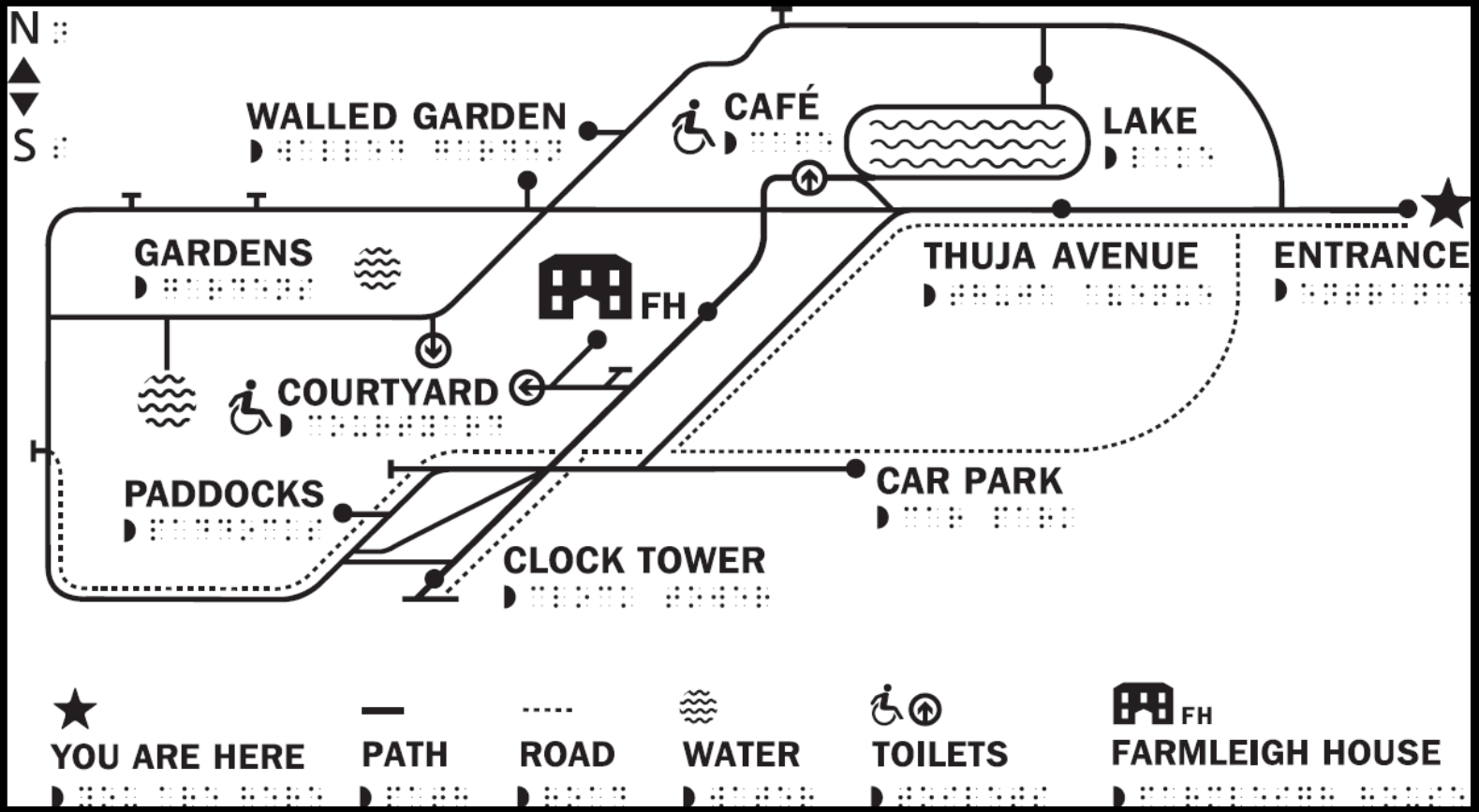


The use of symbols is beneficial to many people including children, people whose first language is not English, and people who have learning difficulties.

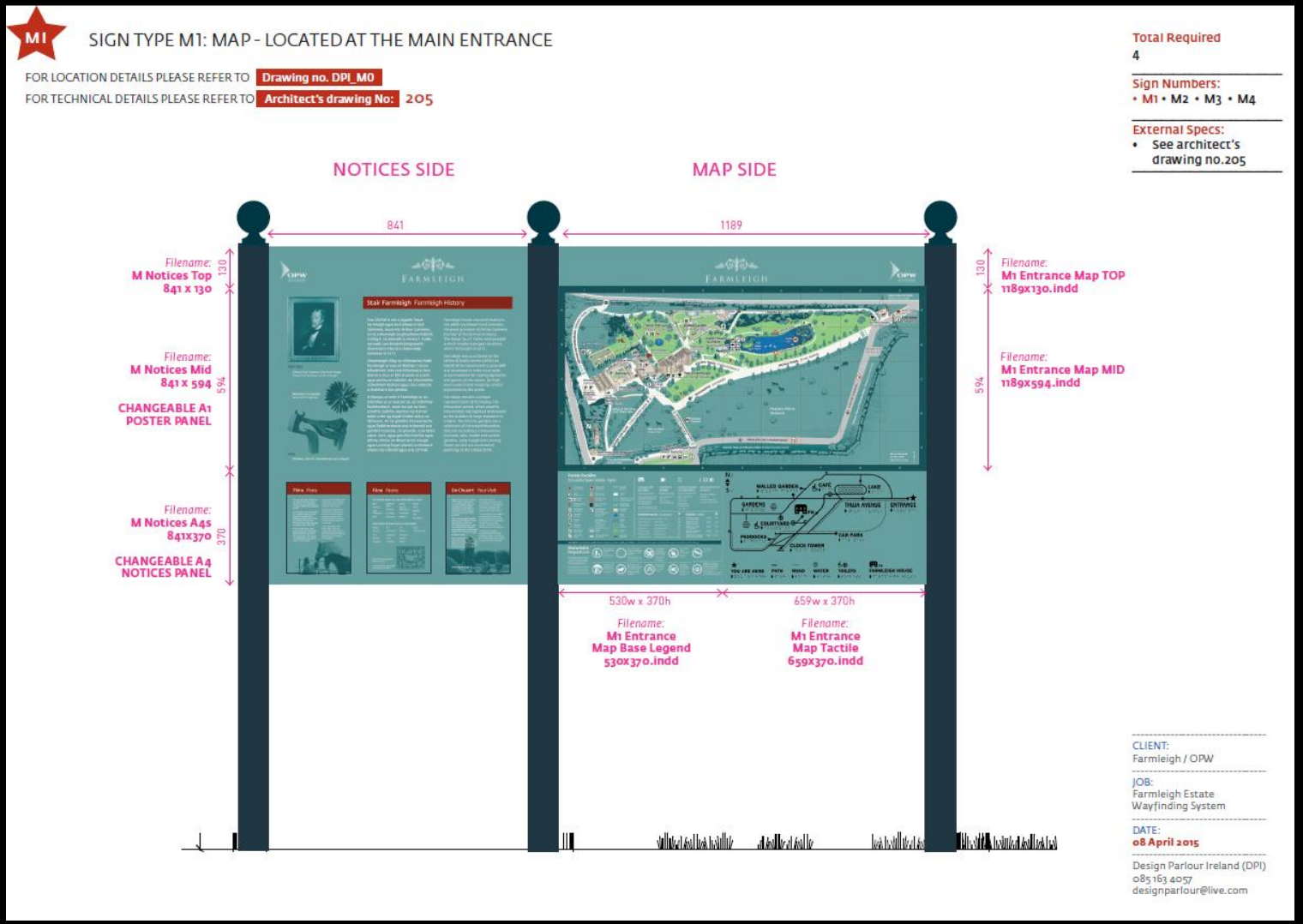
Where a number of destinations are located in the same direction, they should be grouped together on a sign and share a single arrow. Repeated arrows are likely to clutter a sign and make it more difficult to read.



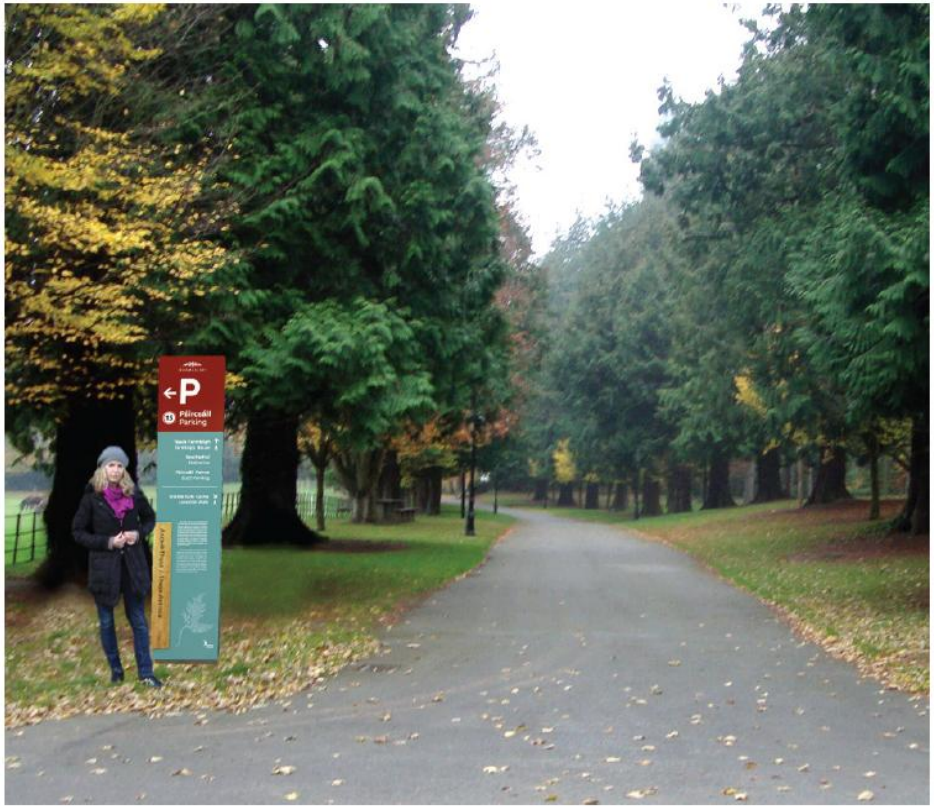
Example of Braille Tactile Direction Map



Courtesy of Mary Fannon MA Design



Courtesy of Mary Fannon MA Design



Tactile wood panel detail, Fedra typeface and testing visibility on site

Farmleigh and OPW - Bespoke Sign Family, Illustration and Map Design

Courtesy of Mary Fannon MA Design

Sign family:

Upright Totem

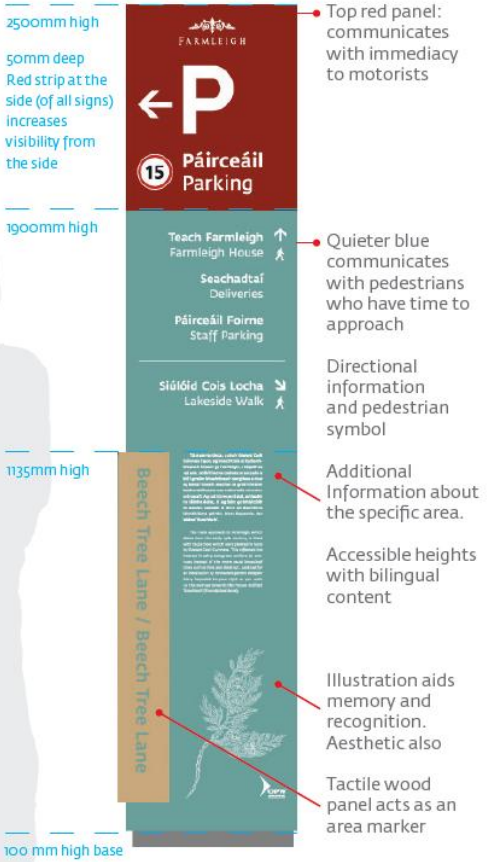
Red communicates with immediacy to motorists

Quieter blue communicates with pedestrians who have time to approach the sign

www.ncbi.ie/information-for/architects-engineers/recommendations-for-signage

was referenced during the design process

Colour testing in situ for contrast



Courtesy of Mary Fannon MA Design

Sign family:

Area Marker -
Vertical or Horizontal?

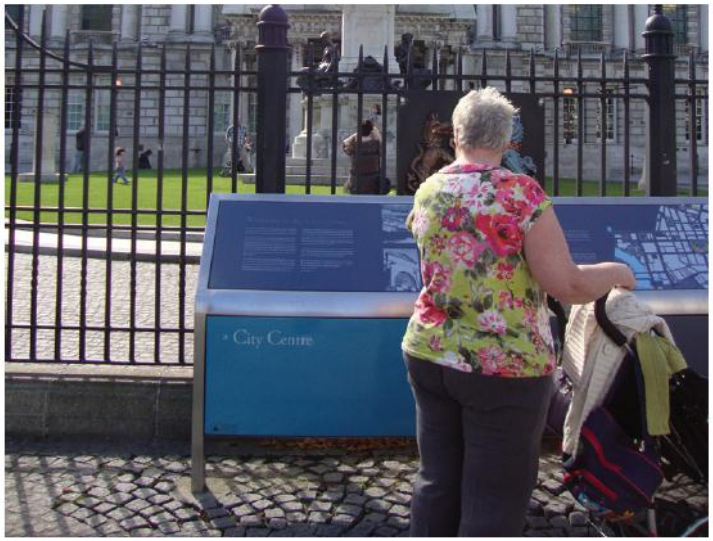
We are testing the samples shown here on site on Tues 31st January 2012 to decide on horizontal or vertical sign type.

Courtesy of Mary Fannon MA Design

Sign family:

Map Panel

The map panel will be at a tilt of 12 or 18 degrees for optimum reading. Research shows this is best for aging eyes but we are concerned how wheelchairs can approach the example below from Belfast. (We are looking into this structure for Farmleigh and want to run it by accessibility standards first? Above Left is an example from Glendalough. We are concerned with health and safety for this and the height of edges to children.



Courtesy of Mary Fannon MA Design

Checklist - Access routes

- Ensure access route has sufficient width for expected number of people.
- Provide recommended clear width 2000mm wherever possible.
- Provide passing places where clear width is less than 2000mm.
- Include resting places at intervals on long routes.
- Ensure width is not less than 1200mm on short constricted sections of an access route.
- Widen pavements in front of shops and where there are bus stops.
- Use firm, smooth and even surface on access routes, with maximum cross-fall gradient of 1 in 50.
- Avoid gaps and vertical deviations between paving slabs greater than 5mm.
- Keep any break in surface or gap such as a drainage gulley no greater than 10mm and perpendicular to line of travel.
- Prevent accidents at changes in level to side of access route with kerb upstands, barriers or guardrail.

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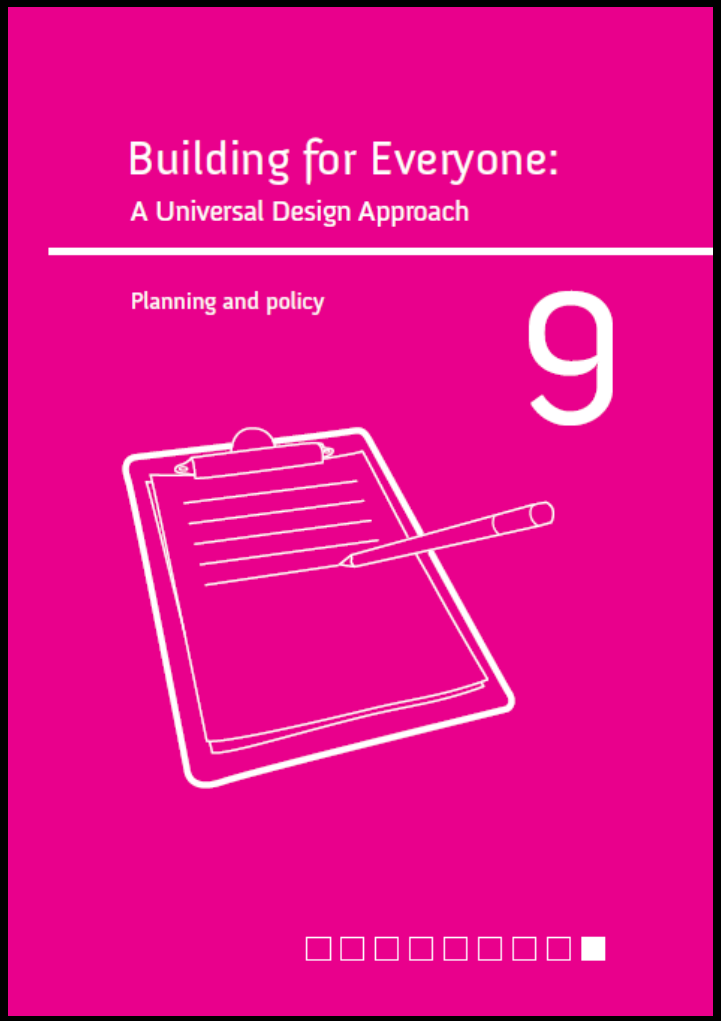
Planning from a Universal Design Approach



It is good practice to ascertain the needs of the range of expected users as early as possible, and to check the practicality and usability of emerging designs & design solutions with a diverse user panel.

Universal Design is important for planning for the following reasons

• It helps us avoid bad development and help us to deliver genuinely sustainable solutions for communities

• It helps us to create better places - for all abilities and all age groups - equitable, inclusive, participative and accessible

• It avoids the need for wasteful and inefficient retro-fitting of solutions, as these matters should be considered at the outset of the design process

• It informs genuinely integrated strategies for land-use, transportation and urban design

• It creates greater efficiencies for public infrastructure investment and produces better economic development models

• It widens the audience and market for well considered development projects enhancing commercial viability

• It helps provide an environment in which people can age and retain their independence

Car parking and set-down spaces

Car parks should be accessible, easy to use, and should provide sufficient parking spaces within a well-designed environment to meet the needs of all people expected to use them.

Provision of adequate and nearby car parking and set-down spaces is essential to ensuring accessibility to residential developments, town centres, recreational areas and other visitor locations.

Dedicated accessible car parking should ideally be located within 50 metres (*Inclusive Design, Department of Transport (UK), 2005)* of the destination point

Wherever car parking facilities are provided, they should consider the needs of all car users, including parents and carers with young children; people who need to load and unload goods and shopping; people who may not be able to walk very far or carry goods over a long distance; people with visual difficulties; people with hearing difficulties; and people who use larger vehicles such as vans with rear hoists that enable wheelchair users to travel while seated in their wheelchair.

Checklist – Vehicular environments

- Ensure adequate parking facilities for the expected number of car users.
- Provide designated parking spaces and parent and child spaces.
- Supply suitable spaces for other people who need large bays and proximate parking.

Public realm and amenity policy statements

The ‘public realm’ includes streets, squares, parks and other open spaces and should be designed to be attractive, accessible, understandable and usable for all.

The quality of the public realm in our cities, towns and villages can be a significant factor in the quality of the lives of all people who live and work in them.

Public spaces designed with care and implemented with skill engender a sense of pride in a place, enable all persons to use them with ease, may discourage crime, promote healthy living and increase land values.

Conversely, poorly conceived public spaces often reinforce negative perceptions of a place, and all too often public realm is overlooked as the left over spaces between buildings and the surrounding area.

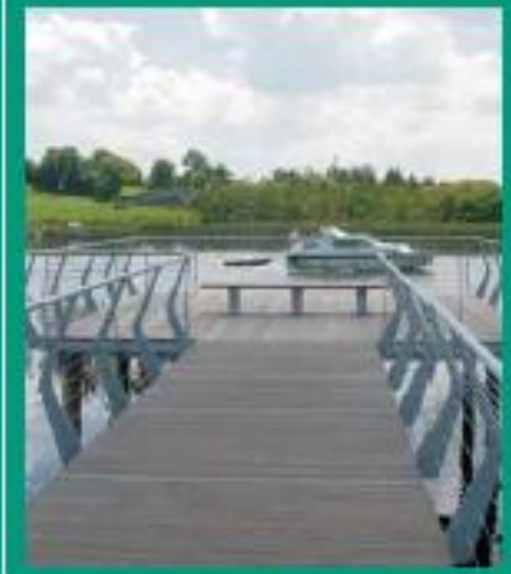
Achieving the highest standards of design and use of the public realm is an important consideration in the planning and design of urban & natural environments and presents a number of challenges and opportunities relative to universal design.

While the detailed design and construction of spaces and places will determine their success, planners have a key role in ensuring that the principles of universal design become a material consideration in developments affecting the public realm.

Planners should be mindful of these challenges presented by Natural Landscapes and Trails and should engage with representative organisations in considering such locations and schemes.

Example of a riverfront amenity park and boardwalk that provides equitable access to a high quality and well-designed amenity area.

Image 9.8 Riverfront amenity park and boardwalk



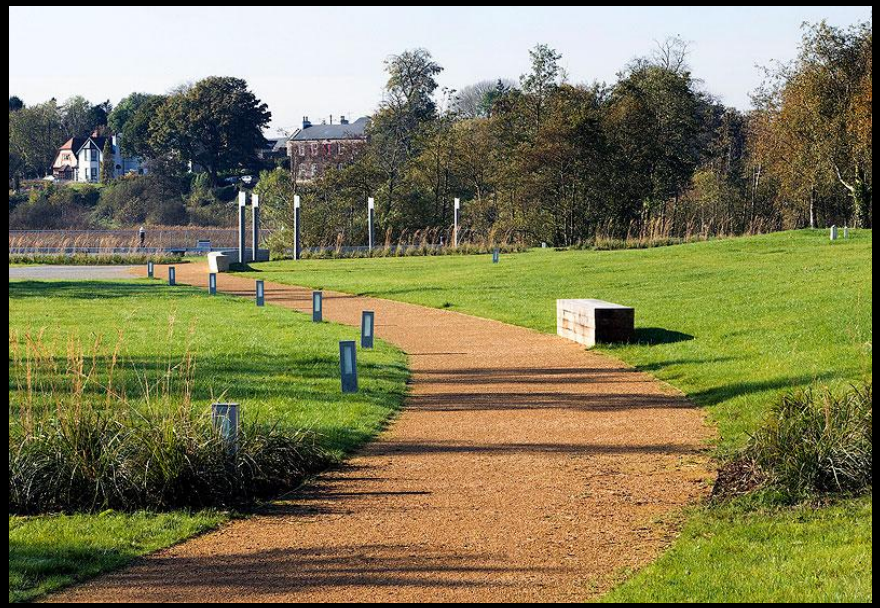
Demonstrates universal design by:

- incorporating clearly defined pathways.
- using minimal visual or physical clutter.
- ensuring level gradient on main pathways.
- ensuring close proximity to and good quality linkages with the town centre.

Riverfront amenity park and boardwalk designed to a high standard taking on board the people who will visit the park;

- Hard compact surface for easy access for all
- Level access throughout
- Easy gradients
- Seating
- Well lit
- Planting as orientation points

Result = Prize winning design and Park used by community



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- Hard compact surface for easy access for all
- Level access throughout
- Viewing points
- Easy gradients
- Seating
- Well lit
- Planting as orientation points
- Ease of orientation

Thank you

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