Guide
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Accessible Sports Facilities Design Guidelines

2022 Edition

Disability Sport NI

www.dsni.co.uk

Disclaimer

The views expressed in this guide are not intended to take away or diminish the responsibility of the user to comply with current or future legislation. The guidance and recommended standards provided in the guide are intended to complement requirements for Building Regulations, Town Planning Requirements or Licensing, not to replace or override them.

Whilst every effort has been made to ensure the accuracy of these Accessible Sports Facilities Design Guidelines and all information contained herein, Disability Sport NI shall not be held responsible or liable to any party in respect of any loss, damage or costs of any nature arising directly or indirectly from reliance placed on this information.

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Image Credits

Disability Sport NI would like to thank Cloud Nine Project Design and Management for the production of the technical diagrams in this publication.

This document is available in alternative formats on request

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Overview

Introduction

These design guidelines have been developed by Disability Sport NI to ensure that new or extended sports facilities in Northern Ireland are designed to meet optimum levels of good practice in terms of access for disabled people.

The guidelines aim to promote a greater understanding of inclusive design and provide detailed technical advice and information which will encourage and support designers to move beyond the basic requirements of the Disability Discrimination Act (DDA) and Building Regulations and embrace optimum levels of good practice in terms of access for disabled people.

Principles of Inclusive Design

Inclusive design is the "approach to the design of the environment, including buildings and their surrounding spaces, and managed and natural landscapes, to ensure that they can be accessed and used by everyone."[1]

The Commission for Architecture and the Built Environment regards the five key inclusive design principles to be:

- Inclusive design places people at the heart of the design process.
- Inclusive design acknowledges diversity and difference.
- Inclusive design offers choice where a single design solution cannot accommodate all users.
- Inclusive design provides for flexibility in use i.e. adaptable to changing use and demand.
- Inclusive design provides buildings and environments that are convenient and enjoyable to use for everyone.[2]

[1] British Standards Institution 2018. BS 8300 Design of an Accessible and Inclusive Built Environment. Part 1: External Environment - Code of Practice.
[2] The Principles of Inclusive Design. (They include you.) Commission for Architecture and the Built Environment. 2006.

About Disability Sport NI

Disability Sport NI is Northern Ireland's main disability sports charity working to improve the health and wellbeing of disabled people through sport and active recreation.

We believe that every disabled person has the right to participate in all aspects of life and are committed to building a more inclusive society where disabled people have the same opportunities as non-disabled people to lead a full, active and healthy lifestyle through sport and active recreation.

Disability Sport NI Design and Management Guides

This guide is one of a series of five design and management guides developed by Disability Sport NI to encourage and support the development and management of sports facilities, stadia and outdoor places which are inclusive of disabled people:

- Guide 1: Accessible Sports Facilities Design Guidelines
- Guide 2: Accessible Sports Facilities Management Guidelines
- Guide 3: Accessible Sports Stadia Design Guidelines
- Guide 4: Accessible Sports Stadia Management Guidelines
- Guide 5: Accessible Outdoor Places Design Guidelines

In addition, two Guidance Notes have also been produced for Sports Pavilions and Boxing Facilities. All guides and guidance notes are available from the Disability Sport NI website: www.dsni.co.uk

Inclusive Sports Facility (ISF) Advisory Group

This guide has been produced with the support of the ISF Advisory Group, which is a forum established by Disability Sport NI consisting of representatives of the following key disability organisations in Northern Ireland who are committed to ensuring that sports facilities, stadia and outdoor places are inclusive of disabled people.

- Blind Sports Network NI
- Disability Action
- Disability Sport NI
- Guide Dogs NI
- IFA Inclusive Supporters Association NI
- Inclusive Mobility and Transport Advisory Committee (IMTAC)
- NI Deaf Sports
- Royal National Institute of Blind People (RNIB)
- Royal National Institute for Deaf People (formerly Action on Hearing Loss)

Endorsements

This guide has been developed by Disability Sport NI and endorsed by:

RNID

All In Access Consultancy

Blind Sports Network Northern Ireland

Disability Action

imtac

ISANI Inclusive Supporters Association Northern Ireland

mencap NI

Guide Dogs N.Ireland

Northern Ireland Deaf Sports

RNIB Northern Ireland See differently

How To Use This Guide

This guide is divided into eight sections as explained below:

Sections 1 - 7: Sports Facilities Design and Technical Guidelines

These sections provide technical guidance in relation to each key area of sports facility design, however please note that the recommendations in these sections will vary depending on the size and type of facility. For ease of interpretation we refer to the following four types of facilities in the guide:

- **Fitness Suites** (including exercise studios);
- **Swimming Pool** (Note: leisure and play pool equipment is not covered by this guide);
- **Sports Facilities** (with four courts or less);
- **Large Sports Facilities** (with more than four courts, or facility with courts and swimming pool/s).

Section 8: Sports Specific Access Information

This section supplements the design and technical guidelines by providing sports specific disability access information in relation to the specific technical requirements of some of the most popular disability or Paralympic sports. This section only applies to sports facilities designed as centres of excellence for a particular sport.

Guidance Signpost

- Guidance Signposts are denoted throughout the document. The guidance signposts provide relevant cross-references to existing accessibility design standards.

Disability Sport NI acknowledges that design criterion required for smaller sports pavilions and boxing facilities will vary in some instances from the Recommended Standards contained within this guide. Accordingly, separate Disability Sport NI ‘Guidance Notes’ are available for Sports Pavilions and Boxing Facilities.

Note: Disability Sport NI considers a Sports Pavilion to be: a building which contains only limited changing facilities and toilet facilities; which may, or may not, include an additional meeting/committee room and is without a sports hall or fitness suite.

The Inclusive Sports Facility (ISF) Accreditation Scheme

The ISF Accreditation Scheme has been developed by Disability Sport NI to recognise sports facilities which have been designed to meet optimum levels of good practice in terms of access for disabled people.

The scheme provides District Councils and other sports facility operators with a mechanism to ensure that new, extended or refurbished sports facilities are fully inclusive and meet the sporting needs of disabled people.

The accreditation scheme is awarded to sports facilities who successfully meet the recommendations outlined in this guide with two levels of accreditation available as follows:

- ISF Excellence Accreditation: this level of accreditation is concerned with the achievement of optimum levels of good practice and is applied to all new facilities.

- ISF Accreditation: this level of accreditation is concerned with the achievement of best possible practice within existing, extended or refurbished sports facilities.

To find out more about the ISF Accreditation Scheme, contact Disability Sport NI.

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Sections

1-8

Sports Facilities Design and Technical Guidelines

1 Site Wide Accessibility

1.1 External Routes and Pathways

Overview

It is essential that sports facilities are designed to ensure that access for disabled people is considered in terms of the site and not just within the building itself. Accordingly, sports facility designers are required to meet standards of good practice in relation to the design of parking facilities, setting-down points, external pathways and entrances. To allow for easy, unrestricted movement on external routes by the public, including disabled people, accessible paths of a high standard should be provided between the following areas:

- From bus/rail stops, near to or within the site, to the entrance.
- From the public highway to the entrance.
- From accessible car parking bays to the entrance.
- From the setting-down point to the entrance.

Note: where external pathways are outside a sports facility, designers should influence this as far as practicable in discussion with the Department of Infrastructure and as part of any overall planning strategy.

1.1.1 Design of external routes and pathways

Recommended Standards

- Pathways leading to the entrance and on escape routes should be a minimum of 2000mm wide.[1]
- Pathway surfaces should be firm, slip resistant and smooth. Cobbles, sand or loose gravel surfaces are not acceptable.
- Splay corners should be used on pathways to facilitate wheelchair manoeuvring.
- Where feasible, provide pedestrian routes clearly defined from vehicular routes within sports facility grounds using a kerbline.
- Pedestrian routes should be separate from cycle paths where the latter are provided within sports facility grounds. Cycle paths should have appropriate tactile paving at the start and end of the route to assist people who are blind or partially sighted.

1 For external pathways to sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

- Street furniture such as lamp posts, signposts, litter bins, seating and cycle racks should be located beyond the edge of pathways ensuring that there is a minimum 2000mm clear width throughout the length of the path.
- Where bollards are used, they should be minimum 1000mm high. Bollards should contrast visually against the background in which they are seen and have a minimum 150mm deep visually contrasting band to the top. Bollards should not comprise a highly reflective material.
- Bins should be minimum 1000mm high, with an opening at 1000mm high. It should be possible to detect bins at ground level.
- Drainage gullies and grates should be located beyond the edge of pathways ensuring that there is a minimum 2000mm clear width throughout the length of the path. Slots to be maximum 13mm to prevent wheels and long canes getting trapped (maximum 18mm if circular holes are used). Lay slotted gullies perpendicular to the direction of travel, if unavoidable on pedestrian routes; and including those positioned within accessible parking bays. Where positioned on an access route, gullies should be flush with the surrounding ground surface and have a similar coefficient of friction.
- Tactile paving should be used to provide warning and guidance to people who are blind or partially sighted when approaching a dropped kerb or at a crossing point within a car park. There are different types of tactile paving for different situations and it should be selected appropriately depending on the hazard warning and guidance information required. On a site specific basis, consult with Guide Dogs NI.
- Avoid windows, outwardly opening doors and other objects projecting onto pathways. Where these are unavoidable, a minimum 1200mm unobstructed pedestrian route should be maintained beyond the leading edge of a door in the open position (firm surface).
- Outwardly opening doors (other than for emergency use) should be protected e.g. using a barrier rail, or recessed.
- Avoid tree gullies and instead use a permeable paving surface.

Additional Considerations

- Pedestrian pathways should be separate from cycle paths. Where integration is unavoidable pedestrian pathways should be differentiated from cycle paths e.g. using a painted/raised white line, and suitable tactile indication installed at the start and end of the path. On a site specific basis, consult with Guide Dogs NI.

Accessible approach and entrance, Newry Leisure Centre -
(image courtesy of Donal McCann Photography)

Guidance Signpost

- BS 8300-1:2018. **Paragraph 8.1.2 & Figure 8** Width and height of an access route, p.26-27 & **Paragraph 8.2.1.1** Low-level walls and free-standing posts and columns, p.28-29 & Provision of hazard protection, p.30-31.
- BS 8300-1:2018. **Paragraph 8.5** Gates, barriers and restrictions.
- Guidance on the use of tactile paving surfaces. **Chapters 2, 3 and 5**. Department for Transport.
- LTN 1/20 Cycling Infrastructure Design. Department for Transport.
- DD CEN/TS 15209:2008. Tactile paving surface indicators produced from concrete, clay and stone.
- Cafe Culture: Memorandum of Understanding. Belfast City Centre Management.

1.1.2 Gradient

Note: pathways with a gradient steeper than 1:21 are not regarded as providing suitable access and are not acceptable in new sports facility grounds. Gradient is also an important consideration in refurbished sports facilities.

Recommended Standards

- Pathways should be level wherever possible or have the shallowest possible gradient. The steepest allowable gradient for pathways in new sports facilities is 1:21 and every effort should be made to meet this as part of the development and landscaping works undertaken in refurbishment projects. Consider handrails to offer support on extended ramp gradients/lengths.
- Crossfall gradient on pathways and approach routes should not exceed 1:50.

Guidance Signpost

- BS 8300-1:2018. **Paragraph 8.1.4** Gradients, p.28.

1.1.3 External ramps and steps

Note: as external steps and ramps are normally only necessary to improve access on paths with a gradient steeper than 1:21 (and gradients steeper than 1:21 are not regarded as providing a good level of access), the use of steps and ramps is not recommended.

1.2 Parking and Setting-down Point

Overview

Many disabled people in Northern Ireland travel to sports facilities by private car, taxi or coach therefore in creating inclusive sports facilities, the provision of designated accessible parking bays and setting-down points for disabled visitors and disabled people working there is essential. Others, particularly people who are blind or partially sighted, will travel by public transport while others who live nearby will walk or push to the facility.

1.2.1 Designated on-site accessible parking provision

South Lake Leisure Centre

Recommended Standards

- The recommended number of accessible parking bays for sports facilities should be a minimum of two accessible parking bays or 8% of total parking capacity, whichever is the greatest.[2]
- One additional accessible bay should be provided for each employee regularly working in the facility who is a 'Blue Badge' holder, differentiated from bays designated for other users.
- Accessible bays should be located as close as possible to the entrance and no more than 100m.
- If accessible parking bays are located more than 50m from the entrance then pathways should be covered to offer weather protection.
- The design of pathways between accessible parking bays and the entrance should comply with the recommended standards specified in Section 1.1 of this guide: External Routes and Pathways.
- See Disability Sport NI Guide 2: Accessible Sports Facilities Management Guidelines; Management of Accessible Parking Bays Policy.

Additional Considerations

- Include additional provision for large designated parking bays, 4800mm wide by 8000mm long, to cater for vehicles converted for side or rear access using hoists or ramps.

Guidance Signpost

- BS 8300-1:2018. **Paragraph 7.4** General provision, p.17-18.

2 Where car parks have more than 500+ spaces a minimum of 6% of accessible car parking spaces may be acceptable, depending on anticipated use. For parking at sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

1.2.2 Design of accessible parking bays

Recommended Standards

- Accessible car parking bays should be in accordance with Figure 1 of this guide: Accessible Parking Bays; preferably comprising a raised and dropped kerb arrangement (Diagram A). Where a dropped kerbline is installed along the entire length of an accessible parking zone it should include buff corduroy hazard warning paving along its entire length (Diagram B).
- Vertical signs are required at the head of each bay as shown in Figure 1, clearly signed for use by 'Blue Badge Holders Only'. They should be positioned 1000mm high to the underside and should contrast visually with the background against which they are seen. **Note:** this will assist in identifying accessible parking bays easily, including in dark conditions.
- Bays to be located on firm and level ground.

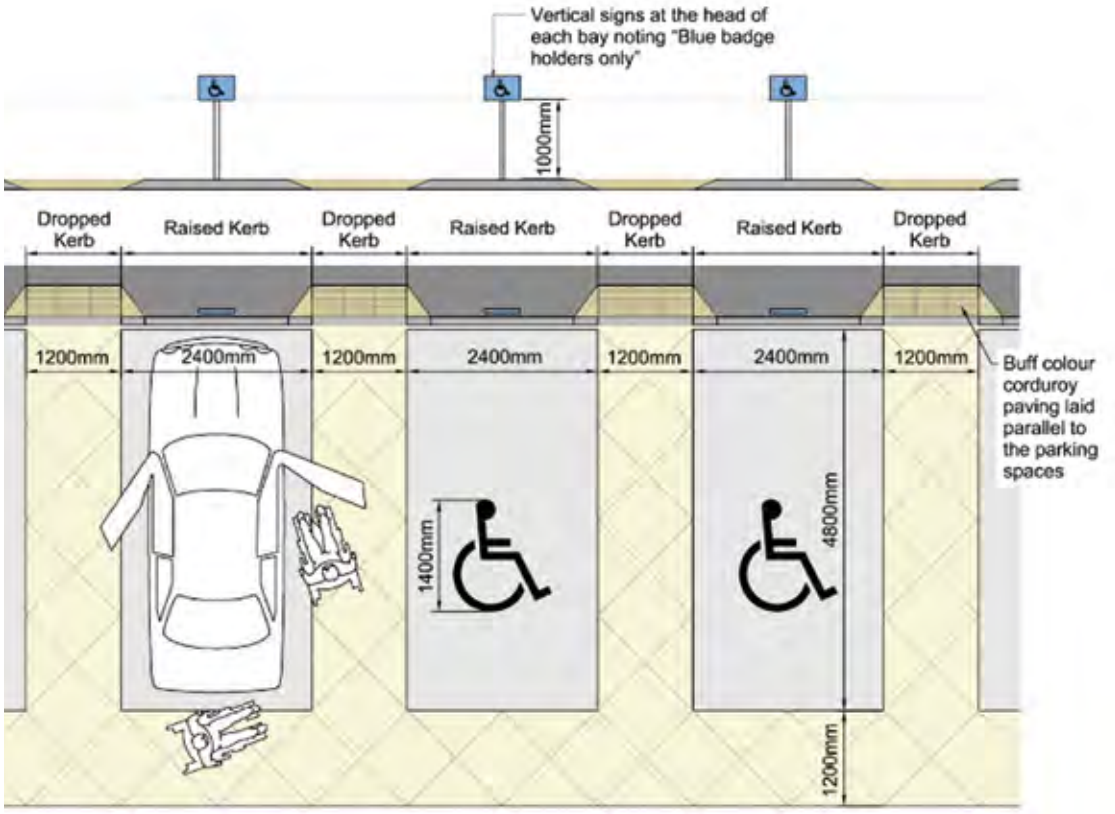


Diagram A

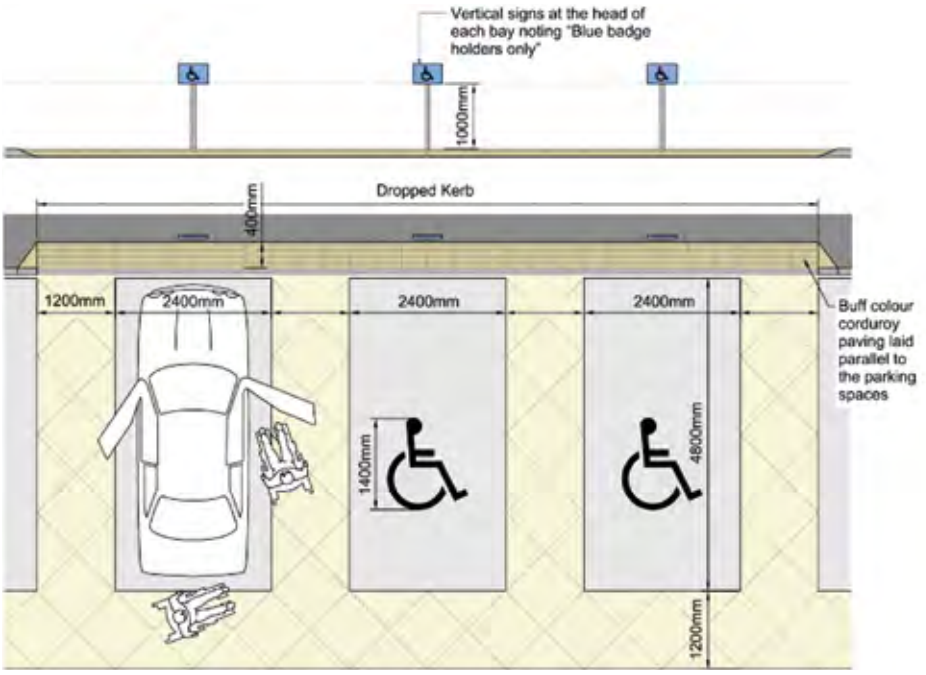


Diagram B
Figure 1 - Accessible Parking Bays

Accessible parking bays (South Lake Leisure Centre)

Accessible parking bay sign (South Lake Leisure Centre)

Guidance Signpost

- PAS 1899:2022. Electric vehicles - Accessible charging - Specification.

1.2.3 Setting-down and pick-up point

Recommended Standards

- A setting-down/pick-up point suitable for use by cars, taxis and accessible buses within 50m of the entrance and preferably in a covered area.
- Setting-down and pick-up point should be in accordance with Figure 2 of this guide: Typical Layouts of Setting-down and Pick-up Point; preferably using a dropped kerb along the entire 9000mm length of the bay, which should include buff corduroy hazard warning paving along its entire length (Diagram B). **Note:** alternatively, where a kerb is considered necessary for security purposes or to prevent encroachment onto an external route, dropped kerbs should be installed at both ends and include buff blister hazard warning paving (Diagram A).
- Clearly identified using a vertical sign and clearly marked at ground level.
- Long enough to accommodate at least one coach with a tail lift where possible; whereby 9000mm length will be required.
- Level with the surrounding pathway along its length (or at each end) to allow for the convenient transfer of wheelchair users to and from vehicles.

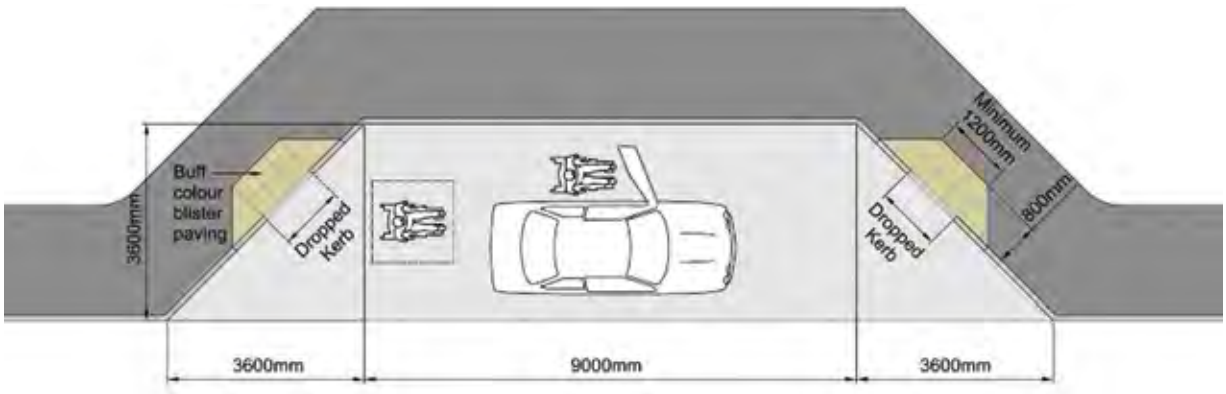


Diagram A

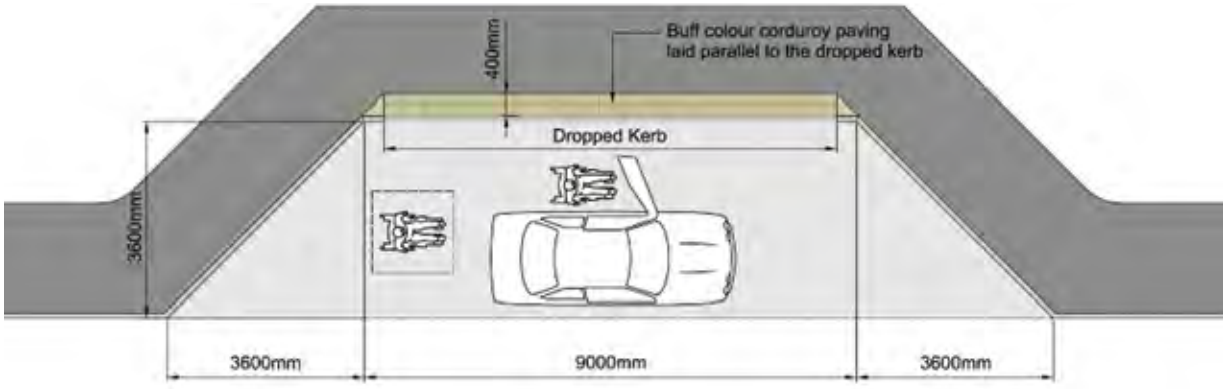


Diagram B

Figure 2 - Typical Layouts of Setting-down and Pick-up Point

Setting-down point (signed as 'Drop off only') - Ballymote Sports & Wellbeing Centre, Downpatrick

Guidance Signpost

- BS 8300-1:2018. **Paragraph 6.1** Setting-down and picking-up points, p.11-12.
- BS 8300-1:2018. **Paragraph 6.2.4** Bus/tram shelters, p.14-15.
- Inclusive Mobility: A guide to best practice on access to pedestrian and transport infrastructure. Department for Transport: **Section 4.7** Information surface; **Sections 6.1 - 6.2** Bus stop overall design; shelters; flags; seating; timetable information.
- DD CEN/TS 15209:2008. Tactile paving surface indicators produced from concrete, clay and stone.

1.2.4 Car park entry and payment

Overview

Where these facilities are applicable, barrier control systems, parking meters, controls and ticket dispensers which can be operated by wheelchair users should be provided.

Guidance Signpost

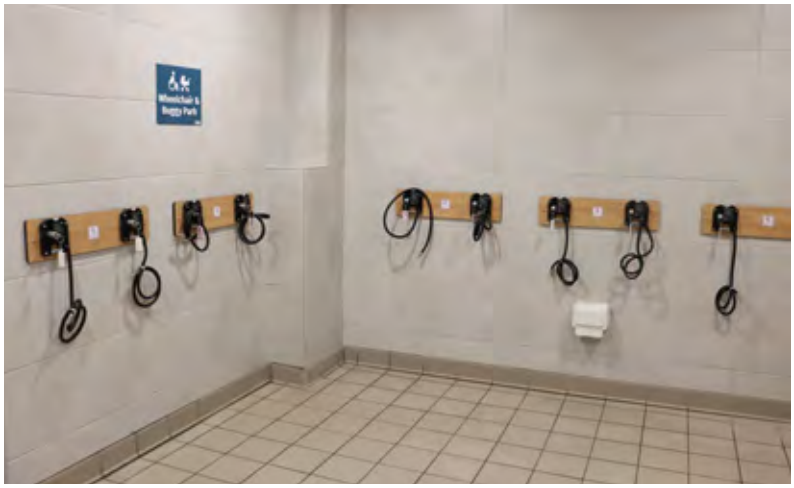
- BS 8300-1:2018. **Paragraph 7.11** Entrance to car parks, and parking controls, p.23-24.
- BS 8300-1:2018. **Paragraph 7.9** Electric vehicle charging, p.23.

1.2.5 Other parking facilities (mobility scooters, bicycles and buggies)

Design teams should consider the provision, location and design of:

- External and internal mobility scooter parking.
- External bicycle parking areas.
- An internal buggy parking zone for child pushchairs.

Mobility scooter parking zone (South Lake Leisure Centre)



Wheelchair and buggy parking zone (South Lake Leisure Centre)

Overview

Mobility scooters are increasingly used by disabled people and older people as a viable method of moving around. A range of scooter size and speed is available. Scooters can address the difficulties disabled people often face getting to and from sports facilities by enabling them to travel greater distances.

The location and design of cycle parking facilities should not impact negatively on disabled people approaching sports facilities.

Use and storage provision for buggies (child pushchairs) should be accommodated.

Recommended Standards

- Cycle racks should be located where they will not cause obstruction on external routes and pathways.
- Cycle racks should be covered by a form of weather protection where possible.
- Cycle racks should be clearly visible through visual contrast with their surroundings e.g. bands of contrast.

Cycle racks (South Lake Leisure Centre)

Additional Considerations

- Provision for external scooter parking should be made in a secure and preferably covered area close to the entrance.

Guidance Signpost

- BS 8300-1:2018 **Paragraph 7.1** Cycle parking, p.16.
- BS 8300-1:2018. **Paragraph 7.10** Mobility services and provision for electric mobility scooters, p.23.
- BS 8300-2:2018. **Annex G** (informative) Table G.5 Space required for a sample of electric scooters when stationary, p.195; Table G.10 Space required for users of electric scooters to turn through 90°, p.197; Table G.15 Space required for a user to turn an electric scooter through 180°, p.199.

2 Entrance

2.1 Entrance and Entrance Doors

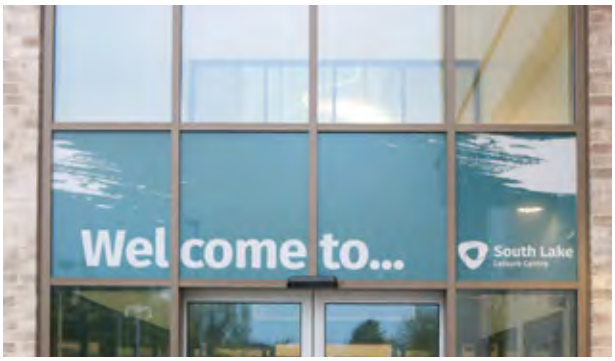
Overview

It is generally envisaged that sports facilities will be used at least occasionally by people using sports wheelchairs with cambered wheels, therefore facility providers will be required to install doors of the width and type specified in Table 1 of this guide: Minimum Entrance Door Width.

Sport Facility Type	**Clear Opening Width (minimum dimensions)**	**Automatic Doors Required**
Sports Pavilions	See Sports Pavilions Guidance Notes available from Disability Sport NI	
Boxing Facilities	See Boxing Facilities Guidance Notes available from Disability Sport NI	
Swimming (with pool/s and associated pool facilities only)	1000mm	No
Fitness Suites (including exercise studios)	1000mm	No
Sports Facilities (with four courts or less)	1000mm*	Yes
Large Sports Facilities (with more than four courts, or facility with courts and swimming pool/s)	1000mm*	Yes
Stadia: See Disability Sport NI Guide 3: Accessible Sports Stadia Design Guidelines		

Table 1 - Minimum Entrance Door Width

*Except sports facilities used for wheelchair tennis (and squash); whereby the minimum clear opening width of entrance doors should be increased to 1200mm.



Clear signage used to denote location of entrance point (South Lake Leisure Centre)

Recommended Standards

- On approach, the entrance should be clearly identifiable through the use of a large clear sign.
- The entrance should be easily distinguishable and should contrast visually with the immediate surroundings.
- The entrance should have a form of weather protection or recessed entrance (unless automatic doors are installed).
- The area immediately in front of the entrance door/s should be level and spacious to enable easy and unrestricted movement, or during an emergency.
- Entrance thresholds should be level. If a raised threshold is unavoidable it should not exceed a height of more than 15mm and should be clearly visible and be chamfered or pencil rounded.
- Amenity lighting should be provided adjacent to the entrance.
- Revolving doors should not be used.
- Power operated doors will assist a broad range of people, including wheelchair users, assistance dog owners and older people (automatic or manually activated). **Note:** automatically activated entrance doors should be be provided where practicable in sports facilities.
- Where provided, automatic doors should be fitted with safety sensors i.e. controlled by a passive infrared system located in an appropriate position, which is sensitive to children and to people who are seated and can sense someone who is standing.

- Where practicable, automatic entrance doors with a sideward sliding arrangement should be provided. (**Note:** automatic swinging or folding doors can present a hazard to some disabled people).
- Automatic entrance doors should be capable of manual operation in the event of a power failure.
- Manual activation controls for power operated doors should be contrasting against the wall or barrier rail surface and located between 750mm and 1000mm above floor level. They should be located as close to the door as possible without causing a safety hazard when the door swings open e.g. risk of collision with wheelchair users and people who are blind or partially sighted.
- Manual opening doors should be avoided, however if used, a doorbell or intercom should be provided to attract the attention of staff for assistance when required. This facility should be accessible to wheelchair users, should contrast visually with its surroundings and be labelled.
- Vision panels to doors should provide a minimum zone of visibility between 500mm and 1500mm above floor level, large enough to enable a standing or seated person to see and be seen from either side of the door.
- Glazed doors and associated side panels should not be frameless. The frame should be distinguishable within its surrounding and glass should have contrasting permanent safety markings such as signs and logos located in the zones 850mm to 1000mm from ground level and 1400mm to 1600mm from ground level.
- Ensure safety markings are visible from both sides of doors.
- Control air ingress by providing a draught lobby, or where this is not feasible, an air curtain can assist.
- Outwardly opening doors (other than for emergency use) should be protected e.g. using a barrier rail, or recessed.

Guidance Signpost

- Automatic Door Systems. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments.
- CSN EN 16005. Power operated pedestrian doorsets - Safety in use - Requirements and test methods. 2012.
- BS 8300-2:2018. **Paragraph 8.3.5** Vision panels, p.22-23 & **Paragraph 8.3.6** Glass doors, p.23-24.
- Glazing. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet V. **Paragraphs 3.1 - 3.3 & Diagram 3.1**, p.14.
- BS 8300-2:2018. **Paragraph 8.5** Access control systems, p.29-30.

Accessible entrance (South Lake Leisure Centre)

2.2 Lobbies

Recommended Standards

- Where lobbies are provided in sports facilities they should be sizeable, to permit a wheelchair user and a companion to rest clear of door swings*. This will also assist parents with pushchairs, persons accompanied by assistance dogs and people using mobility aids/scooters.

*Lobbies used by sports wheelchair users should have a minimum length 2000mm clear from any leading edge of doors (2500mm preferred) and a minimum 2000mm clear width (2500mm preferred).

Guidance Signpost

- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraph 3.24 & Diagram 3.4**, p.25-26.
- Accessible Sports Facilities, Design Guidance Note. **Section 5** Internal Circulation - Lobbies and Figure 8 & 9, p.23-26. Sport England Publications, Wetherby. Sport England 2010.
- BS 8300-2:2018. **Paragraph 8.6.1** Entrance flooring systems, p.31.
- BS 8300-2:2018. **Paragraph 11.3** Floor surfaces, p.53-54.

2.3 Visitor Reception

Reception counter with lowered and standing height sections (South Lake Leisure Centre)

Reception sign (South Lake Leisure Centre)

Overview

The reception should be designed to provide good access for all.[3]
The reception counter should be in sight of the entrance and identifiable by people who are partially sighted.

3 For reception counters in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Recommended Standards

- The approach to the reception area should be direct, free from obstacles and be minimum 2000mm wide.
- A reception counter with an upper and lower section should be provided to facilitate visitors and staff who wish to stand or sit, including wheelchair users and people who are small in stature. See Figure 3 of this guide: Visitor Reception.
- The lower counter section should be located in a prominent position within the main reception counter.
- Rounded corners should be used to any exposed edge.
- Provide an assistive listening system. See Section 6.3 of this guide: Assistive Listening Systems.
- Rest seating in a variety of style options is required to assist people with a range of abilities; there should be space to enable wheelchair users to rest alongside seated companions.
- The design of access control systems e.g. turnstiles within the reception area should accommodate the needs of disabled people.
- Accessible side-hung gates should have an effective clear opening width of minimum 1000mm.
- Security/hygiene barriers should have non-reflective glass, to assist people who rely on lip reading and have permanent safety markings such as signs and logos.
- A sign to indicate that staff assistance is available if required e.g. to assist older people.

Guidance Signpost

- BS 8300-2:2018. **Paragraphs 8.6.2 & 8.6.3** Reception areas & Reception points, p.31.
- BS 8300-2:2018. **Paragraph 16** Counters and reception desks, p.81-86.

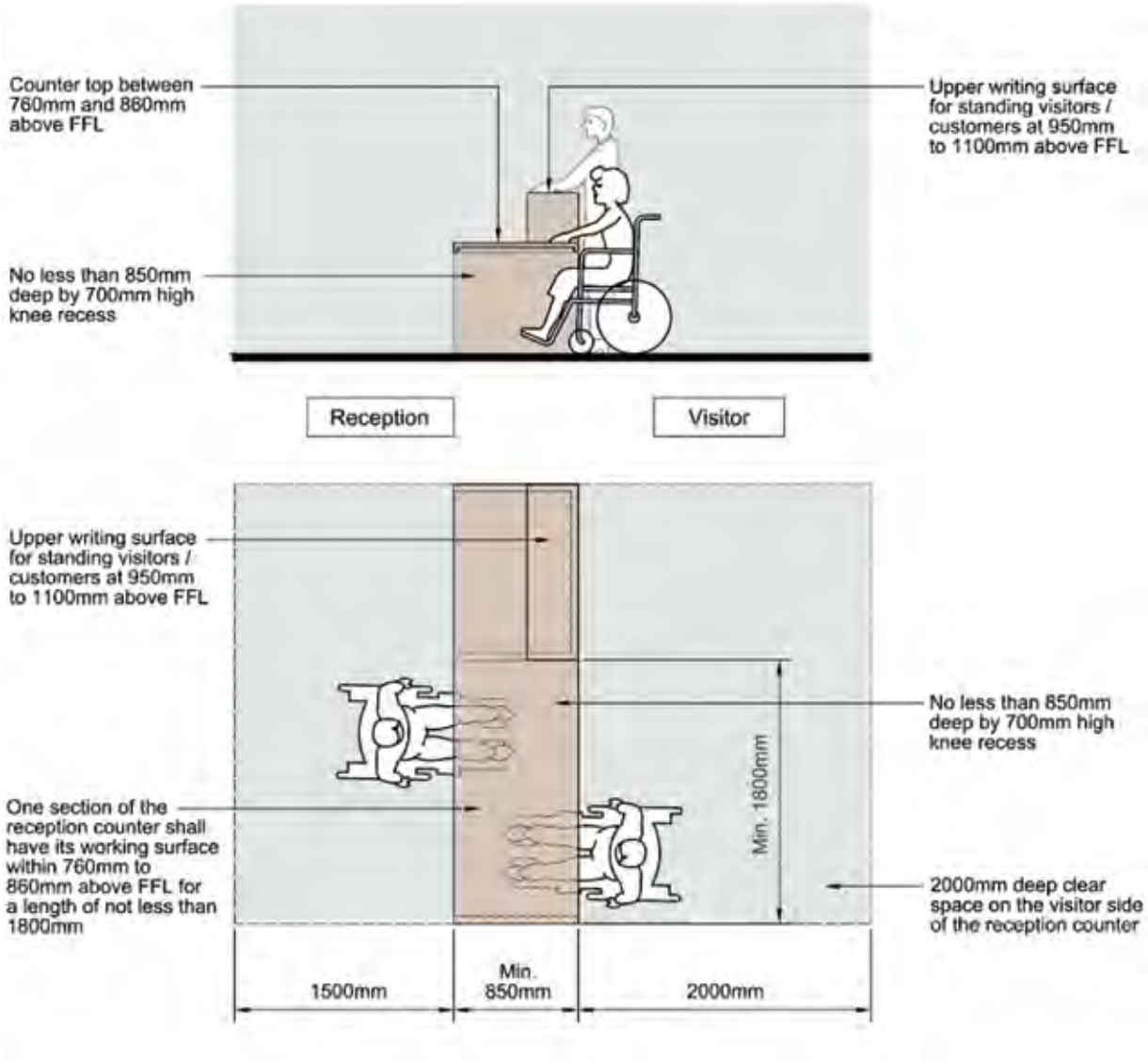


Figure 3 - Visitor Reception

Accessible pass-through gate for inclusive access in reception, Newry Leisure Centre - (image courtesy of Donal McCann Photography)

3 Circulation

3.1 Corridors and Passageways

Wide unobstructed corridor circulation and doors fitted with hold-open devices (South Lake Leisure Centre)

Overview

Corridors and passageways within sports facilities should be wide enough to accommodate disabled people, including within sports facilities where sports wheelchair users and medium to large groups of disabled people use facilities at the same time. Accordingly, the recommended minimum width of corridors has been set at a high level as outlined in Table 2 of this guide: Recommended Minimum Corridor Width.

Recommended Standards

- Corridors and passageways should be clutter free circulation routes. Fire extinguishers and hoses, radiators and other objects should not project into the clear corridor width, as they present a potential hazard to people who are blind or partially sighted. It is recommended that such objects be recessed, however if unavoidable, hazard protection and contrast is recommended.
- Glazing at the end of corridors and passageways should be avoided.
- Where circulation routes are sub-divided by a series of fire doors the provision of electro-magnetic hold backs should be provided.

Sport Facility Type	**Clear Width (minimum dimensions)**
Sports Pavilions	See Sports Pavilions Guidance Notes available from Disability Sport NI
Boxing Facilities	See Boxing Facilities Guidance Notes available from Disability Sport NI
Swimming Pool (with pool/s and associated pool facilities only)	1500mm
Fitness Suites (including exercise studios)	1500mm
Sports Facilities (with four courts or less)	1500mm*
Large Sports Facilities (with more than four courts, or facility with courts and swimming pool/s)	2000mm*
Stadia: See Disability Sport NI Guide 3: Accessible Sports Stadia Design Guidelines	

Table 2 - Recommended Minimum Corridor Width

* In sports wheelchair zones; corridor width should be minimum 2000mm (2500mm preferred to allow two sports wheelchairs to pass, or at least providing 2500mm passing places maximum 5000mm apart).

3.2 Internal Doors

Overview

To facilitate free and easy movement by large groups of disabled people, including people using sports wheelchairs with large cambered wheels, the minimum width of internal doors has been set at a high level as specified in Table 3 of this guide: Minimum Internal Door Leaf Width.

Recommended Standards

- Doors should have at least one leaf that provides the minimum effective clear door opening width specified in Table 3.

Sport Facility Type	**Effective Clear Width (minimum dimensions)**
Sports Pavilions	See Guidance Notes for Sports Pavilions available from Disability Sport NI
Boxing Facilities	See Boxing Facilities Guidance Notes available from Disability Sport NI
Fitness Suites (including exercise studios)	875mm
Swimming Pool (with pool/s and associated pool facilities only)	875mm
Sports Facilities (with four courts or less)	875mm*
Large Sports Facilities (with more than four courts, or facility with courts and swimming pool/s)	875mm*
Stadia: See Disability Sport NI Guide 3: Accessible Sports Stadia Design Guidelines	

Table 3 - Minimum Internal Door Leaf Width

* Except in sports wheelchair zones, whereby minimum door width should be 1000mm (increased to 1200mm to facilitate tennis/squash wheelchairs). This criterion applies also to accessible toilet provisions and accessible changing provisions.

Note: a minimum unobstructed door opening of 1000mm can be achieved using:

- A single leaf door set allowing for a door leaf which achieves a clear width of 1000mm.
- An asymmetric arrangement incorporating a door set of 2000mm with one door leaf of 1000mm and a second door of a smaller width.
- Increase the corridor width to a width greater than the recommended 2000mm, to accommodate 2 x 1000mm doors plus the door frame **Note:** in some situations the use of cranked hinge ironmongery can improve access through door openings by carrying the door leaf clear of the effective opening width.
- To aid unrestricted pedestrian flow and movement, the number of internal doors used should, wherever possible, be kept to a minimum.

- Doors to self-contained wheelchair accessible changing areas, toilets and cubicles in sports wheelchair zones should have an effective clear opening width of minimum 1000mm; and where the sports facility will potentially be used for wheelchair tennis and squash activities, door width should be increased to 1200mm to avoid the need to transfer from a sports chair to a day chair.[4] Doors should be outwardly opening and fitted with contrasting horizontal closing bars (set within the range 800mm to 1050mm above floor level; 900mm preferred).
- To make them easier to negotiate, double doors should incorporate a double swing action rather than an interlocking arrangement, unless power operated e.g. using push pad device.
- Except where privacy is required, all doors should be designed to include visibility glazing. Vision panels should provide a minimum zone of visibility between 500mm and 1500mm above floor level.
- For safety reasons, doors should not swing out directly into corridors and passageways. Where outward swing is required or unavoidable e.g. on fire escape routes, doors should be recessed where possible, or protected by guardrails that are clearly distinguishable and lead people away from the door swing. Provide associated sign to warn of outward door swing.
- Direction of door swing along circulation routes should be consistent.
- Design and installation of doors should ensure that the maximum force required to open doors is as illustrated in Figure 4 of this guide: Door Swing Opening Force Requirements.

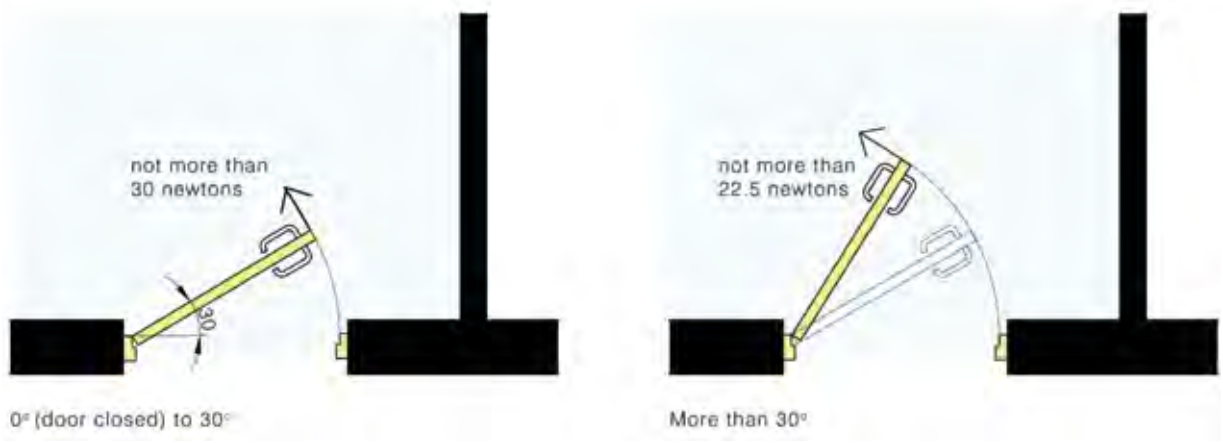


Figure 4 - Door Swing Opening Force Requirements

- A space of at least 300mm should be provided between the leading edge of the door and a return wall on the pull side (unless the door is power operated).

4 For internal doors in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

- Doors that are power operated or automatic will assist a broad range of people, including wheelchair users, assistance dog owners and older people and should be provided where practicable in sports facilities.
- Where provided, automatic doors should be fitted with safety sensors i.e. controlled by a passive infrared system located in an appropriate position, which is sensitive to children and to people who are seated and can sense someone who is standing.
- Door opening furniture with a lever action and closed end, at a comfortable height for wheelchair and ambulant users, should be used to enable doors to be opened one handed.
- The use of locks/latches comprising a lever action, or extended grip thumb-turn, to assist people with reduced dexterity should be provided.
- Do not fit 'Pull' handles on the 'Push' side of non-latch bolt doors that are only capable of swinging in one direction, as this may cause confusion and result in congestion.
- To assist people who are partially sighted, door furniture should contrast visually with the surface of the door.
- Wherever possible, electro-magnetic hold back controls to fire doors, which only close when the fire alarm is activated, should be provided.
- Glazed internal doors and associated side panels should not be frameless. Glass should have contrasting permanent safety markings such as signs and logos located in the zones 850mm to 1000mm from ground level and 1400mm to 1600mm from ground level.
- The design of access control systems to internal doors should be avoided, however where provided for security purposes they should incorporate design features to assist people with a range of abilities e.g. proximity card reader system instead of code number activation; positioned at an accessible height 900-1100mm above floor level and located as close to the door as possible without causing an obstruction or hazard; be clearly identifiable against the background surface; include audible, visual and tactile features.
- See Section 4.11 of this guide: Visual Contrast.

Internal doors to sports hall
(Foyle Arena, Derry~Londonderry)

Wide door leaf to Changing Places toilet
(South Lake Leisure Centre)

Internal doors showing ironmongery, signs and contrasting trims (South Lake Leisure Centre)

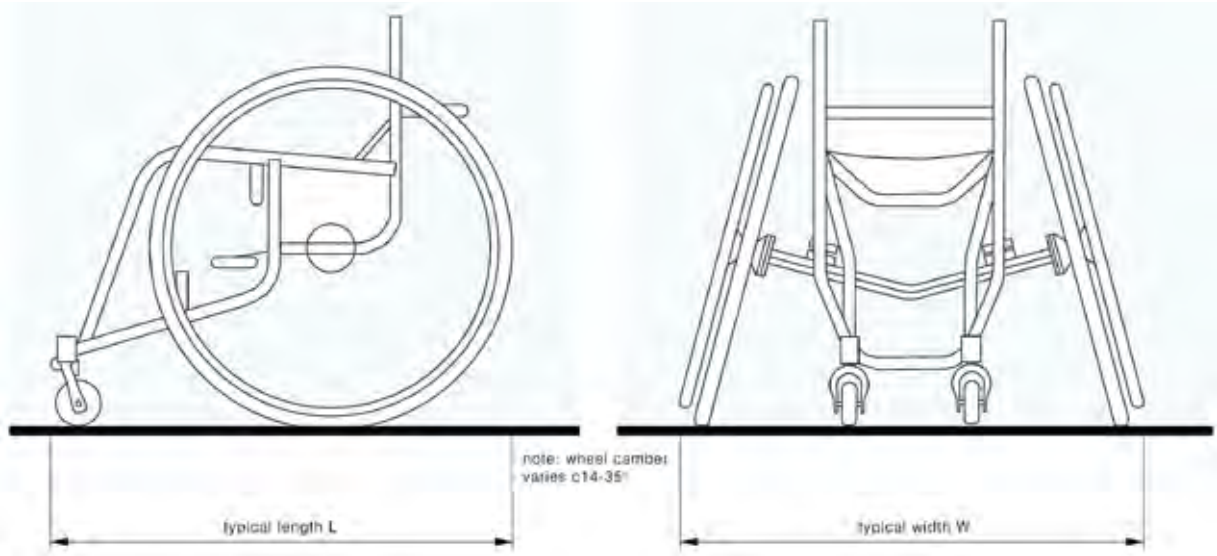
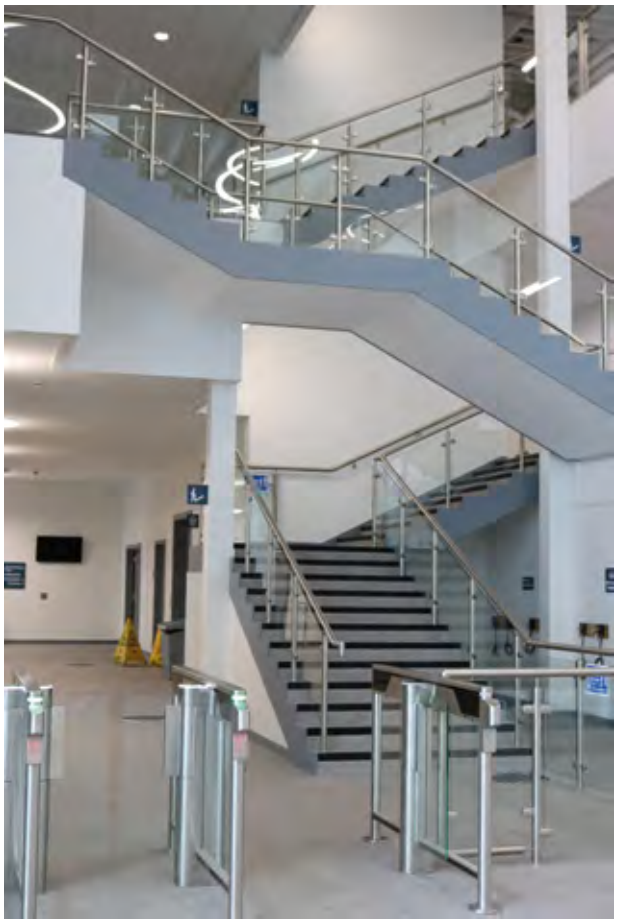


Figure 5 - Sports Wheelchair

Guidance Signpost

- Stairs, ramps, guarding and protection from impact. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet H. **Paragraphs 7.1 - 7.5**, p.43.
- BS 8300:2009 +A1:2010. **Paragraph 8.3.5** Vision panels, p.22-23 and **Paragraph 8.3.6** Glass doors, p.23-24
- BS 8300-2:2018. **Paragraph 8.4** Door fittings, p.24-29.
- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraph 3.12**, p.22.
- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraphs 4.13 and 4.14 and Table 4.1**, p.29.
- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraph 5.44(g)**, p.47 and **Diagram 5.8**, p.48.
- BS 8300-2:2018. **Paragraph 8.5** Access control systems, p.29-30.
- Automatic Door Systems. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments.
- Architectural Ironmongery. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments.
- CSN EN 16005. Power operated pedestrian doorsets - Safety in use - Requirements and test methods. 2012.

3.3 Vertical Circulation



Main staircase within foyer (South Lake Leisure Centre)

3.3.1 Passenger lifts

Overview

To ensure free and unrestricted access to all areas on all floors of sports facilities, one or more passenger lifts must be provided in all facilities with more than one storey. **Note:** it is not ideal to have the main playing surface at a level other than entrance level, due to logistics when holding disability competitions e.g. manoeuvring equipment, numbers of competitors with disabilities who will be using the facilities etc.

3.3.1.1 Location of lifts

Recommended Standards

- Lifts should be located close to the entrance, reception area and main circulation routes.

3.3.1.2 Lift car specification

Sport Facility Type	Door Width into Lift (minimum dimensions)	Lift Car (minimum dimensions)	No. of Lifts
Sports Pavilions	See Sports Pavilions Guidance Notes available from Disability Sport NI		
Boxing Facilities	See Boxing Facilities Guidance Notes available from Disability Sport NI		
Fitness Suites (including exercise studios)	800mm	1100mm wide by 1400mm deep	1
Swimming Pool (with pool/s and associated pool facilities only)	800mm	1100mm wide by 1400mm deep	1
Sports Facilities (with four courts or less)	1100mm*	2000mm wide by 1400mm deep	1
Large Sports Facilities (with more than four courts, or facility with courts and swimming pool/s)	1100mm*	2000mm wide by 1400mm deep	2
Stadia: See Disability Sport NI Guide 3: Accessible Sports Stadia Design Guidelines			

Table 4 - Recommended Number, Size and Dimensions of Lifts

* Except to lifts serving tennis and squash wheelchair activities; whereby minimum lift door width should be increased to 1200mm.

Lift Dimensions	Users Accommodated
1100mm wide by 1400mm deep	One wheelchair user (in manual or electrically powered wheelchair) plus two other people. Not large enough for sports wheelchair
2000mm wide by 1400mm deep	One wheelchair user in sports wheelchair plus several other people OR three people in sports wheelchairs OR person using a mobility scooter

Table 5 - Users Accommodated in Lifts

Note: lifts which have opposite doors enable wheelchair users and sports wheelchair users to exit without turning or reversing.

Recommended Standards

- Lift car size and orientation should be based on Tables 4 and 5 of this guide: Recommended Number, Size and Dimensions of Lifts; and Users Accommodated in Lifts.
- Floor plan layout may dictate that lifts have opposite or perpendicular door configurations on exit. If so, clear audible warning in advance of opening is recommended to inform passengers that doors will be opening behind or to the side.
- Lifts in a bank of lifts to have audible indication at each floor to denote arrival, to help people who are blind or partially sighted to identify which lift to use.
- At each floor level there should be:
  - A clear space of at least 1500mm by 1500mm to ensure adequate manoeuvring space for wheelchair users. Where feasible 2000mm by 2000mm should be provided.
  - Audible announcements to indicate arrival of lift, floor level and direction of travel should be provided to aid people who are blind or partially sighted.
  - A clear visual display indicating the level reached by the lift should be provided inside and outside the lift car, to aid people who are deaf, have a hearing loss or tinnitus.
  - A clearly visible sign opposite and adjacent to the lift with raised embossed numbers/letters indicating the floor level should be provided.
- Landing ‘call’ buttons should:
  - Be positioned between 900mm and 1100mm above the floor level of the landing and not less than 500mm from any return wall.
  - Have suitable, large raised tactile numbers/symbols and Braille to indicate function.
  - Be clearly distinguishable through suitable visual contrast.
- The provision of ‘fire protected’ lifts i.e. evacuation lifts should be considered based on an assessment of the perceived risk as part of the overall fire evacuation strategy. Key to this assessment will be consideration of likely occupancy levels and the nature of occupancy (e.g. likely use of the facility by groups of wheelchair users or other people with mobility difficulties).
- Lift doors should contrast visually with the adjacent landing wall surface and internal car wall surfaces. Lift doors should not have a reflective or mirrored surface finish.

- Internal control buttons should:
  - Be positioned between 900mm and 1200mm above floor level and not less than 400mm from any return wall.
  - Have suitable, large raised tactile numbers/symbols and Braille to indicate function.
  - Be clearly distinguishable through suitable visual contrast.
- There should be a minimum nine second time delay to the lift door closing mechanism. This will assist older people, people who are blind or partially sighted including assistance dog owners and people with mobility difficulties when approaching and entering/exiting the lift.
- The lift should have an emergency communication system which gives audible and visual indication that the alarm has been raised and received.
- Ensure accurate 'levelling' between the floor of the lift and landing level at each storey as some wheelchair users will find even a small difference in level difficult to negotiate.
- The provision of a duplicate set of controls on the opposite side of the lift car should be provided in larger lifts i.e. 2000mm by 1400mm or larger.
- The floor of the lift should be slip resistant and should not be dark in colour.
- A handrail should be provided along at least one side of the lift car. The top surface of the handrail should be not less than 875mm or not more than 925mm above the floor of the lift.
- Where a lift has only one door, the provision of a mirror on the wall of the car opposite the door is required to aid navigation by wheelchair users. The mirror should be no lower than 900mm from the lift floor.
- Areas of glass in lifts, including mirrors, should be identifiable to people who are blind or partially sighted.

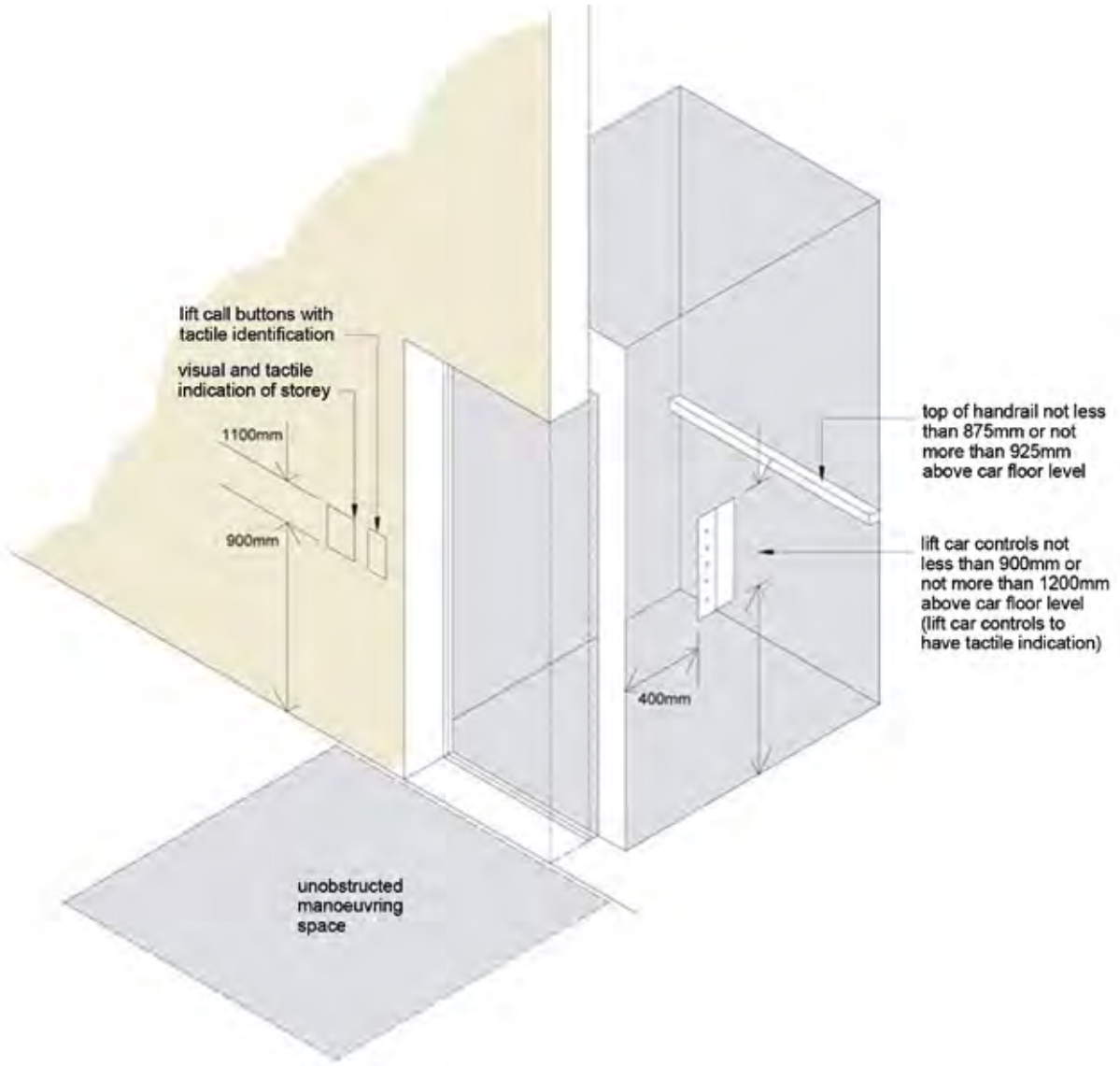


Figure 6 - Passenger Lift Car Fit-out

3.3.1.3 Platform lifts, stair lifts and enclosed vertical lifting platforms

Overview

Although the provision of vertical access using short-rise platform lifts and stair lifts may meet the requirements of Part R of the Building Regulations, these lifting devices are not regarded as providing a reasonable or acceptable means of vertical access to new or refurbished sports facilities for disabled people. However, given the space constraints in some existing buildings it may not always be possible in the refurbishment of existing sports facilities to provide an alternative means of vertical access. Enclosed vertical lifting platforms may be acceptable in exceptional site specific areas.

Recommended Standards

- Where it can be demonstrated that full passenger lift standard cannot be achieved in exceptional site specific areas of refurbished or existing sports facilities, enclosed vertical lifting platform provision used to provide vertical access should have:
  - A fully enclosed car.
  - Dimensions capable of accommodating a minimum of one wheelchair user and companion.
  - No restrictions in terms of access or management e.g. assisted or restricted key access is not acceptable.
  - Accessibility features such as visual and audible alert, tactile call and internal buttons, including Braille.

Guidance Signpost

- BS EN 81-70:2003. Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Accessibility to lifts for persons including persons with disability.
- BS EN 81-2:1998 +A3:2009. Safety rules for the construction and installation of lifts. Hydraulic lifts.
- BS EN 81-1:1998 +A3:2009. Safety rules for the construction and installation of lifts. Electric lifts.

3.3.1.4 Stairs

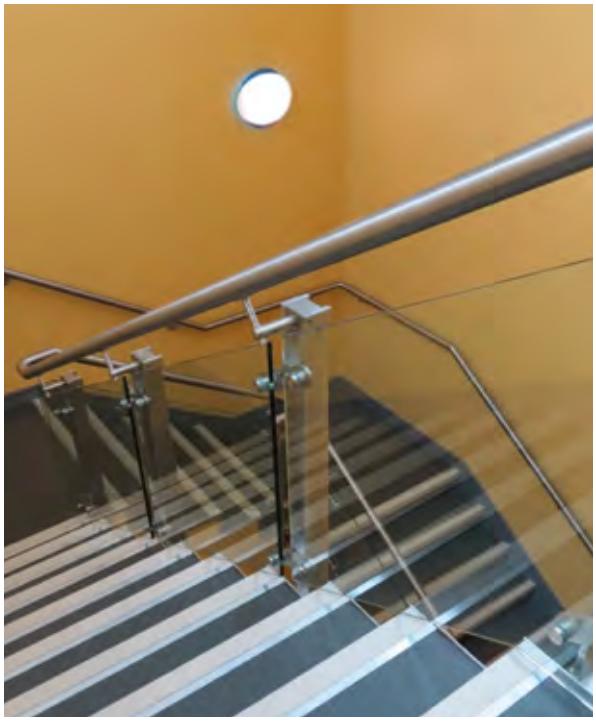
Overview

Stairs should be designed to make them easier and safer to use by ambulant disabled people and people who are blind or partially sighted.

Recommended Standards

- The maximum number of risers in a flight should be twelve.
- Single steps should be avoided as they present a trip hazard. Where a change in level is unavoidable and less than 300mm, a ramp is required.
- A landing should be provided at the bottom and top of each flight of stairs.
- Landing width should be at least that of the stair width.
- The unobstructed landing length of each landing should be not less than 1200mm clear of any door swing onto it.
- There should be clear unobstructed stair width of at least 1200mm.

- The rise of stairs should be in the range 150mm to 170mm.
- The going of stairs should be in the range of 250mm to 450mm.
- Stair risers within a flight or series of flights should be uniform, as irregular risers can be confusing for people who are blind or partially sighted.
- Surface finish should be slip resistant.
- A stair nosing should extend the full width of the flight and be made of slip resistant material. A stair nosing should wrap around the step so that it extends 55mm on the tread and 55mm on the riser.
- Stair nosings should be distinguishable from the remainder of the step e.g. through suitable permanent visual contrast.



Staircases at Foyle Arena, Derry~Londonderry and Newry Leisure Centre

Guidance Signpost

- Stairs, ramps, guarding and protection from impact. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet H. **Paragraphs 3.4 - 3.11**, p.21-24 and **Paragraphs 3.30 - 3.43**, p.30-32.

3.3.1.5 Helical and spiral stairs

Note: flights of stairs of a helical or spiral design are not regarded as providing a reasonable means of access. This is because many disabled people find stairs of this design difficult or impossible to use. They are particularly hazardous for assistance dog owners, given that either the dog or the owner has to descend on the narrow side. They are not acceptable in new or refurbished sports facilities.

3.3.1.6 Internal ramps

Overview

It is not envisaged that internal ramps will be appropriate in new sports facilities or that those undergoing refurbishment will include internal ramps. Where circulation ramps are unavoidable they should be designed in accordance with good practice guidance.

Recommended Standards

- Avoid using 'split-level' areas in sports facilities.
- Even a gentle slope or a slight change in level can be disconcerting or present a tripping hazard, therefore should be clearly signed and identified at floor level to warn all users, including people who are partially sighted.

Guidance Signpost

- BS 8300-2:2018. **Paragraph 10.2** Ramps and slopes, p.40-44.
- BS 8300-2:2018. **Paragraph 10.1** Steps and stairs, p.38-40.
- Stairs, ramps, guarding and protection from impact. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet H. **Paragraphs 4.14 - 4.22**, p.36-38.

3.4 Handrails and Handholds

Overview

The majority of disabled people are ambulant disabled people. The provision of well designed handrails and handholds in sports facilities will assist all users, to ascend and descend stairs and gangways, including ambulant disabled people. People with a range of disabilities will benefit too e.g. people who are blind or partially sighted and people with hidden disabilities, such as epilepsy and heart conditions. Handholds will assist all spectators in steep viewing areas.

3.4.1 Handrails

Recommended Standards

- Handrails should be provided on each side of steps, stairs and ramps.
- The surface of handrails should be distinguishable from the background against which they are seen e.g. through suitable visual contrast.
- A handrail should be at a height of between 900mm and 1000mm from the pitch line and between 900mm and 1100mm from the surface of the landing.
- A handrail should extend not less than 300mm horizontally beyond the top and bottom landings of a stair flight or ramp and should be terminated in a way that will reduce the risk of clothing being caught e.g. by terminating the handrail at floor or ground level.
- Handrails are required in addition to safety guardrails, therefore provision of both may be required on some steps and stairways.
- If steps and stairways consist of more than two flights connected by a landing the handrail should run continuously across the landing area.
- Handrails should be oval or circular in shape:
  - A circular handrail should have a diameter in the range 32mm to 50mm.
  - An oval handrail should have dimensions of 50mm wide and 39mm deep with a radius of at least 15mm.
- Handrails should be easy and comfortable to grip.
- There should be a clearance of between 50mm and 75mm between a handrail and any adjacent wall or obstacle.
- Handrails should be clearly distinguishable from safety barriers/guardrails e.g. using visual contrast.
- Tactile markers (raised blisters) integrated within the handrail design to the underside are recommended to assist people who are blind or partially sighted, as described below:
  - Three steps from top/bottom of stairs: three tactile markers placed on underside of handrails;
  - Two steps from top/bottom: two tactile markers placed on underside of handrails;
  - One step from top/bottom: one tactile marker placed on underside of handrails.

Additional Considerations

- Handrails should not be excessively cold to the touch.
- Provide a second lower handrail 600mm high to the top edge to assist children and people of small stature.

Guidance Signpost

- BS 8300-2:2018. **Paragraph 10.3** Handrails to ramped and stepped access, p.44-46.

3.4.2 Handholds

Guidance Signpost

- For sports facilities where spectator viewing is provided, see Disability Sport NI Guide 3: Accessible Sports Stadia Design Guidelines. **Section 3.8.2** Handholds, p.36.

Viewing area with handholds on gangways, accessible seat provisions and wheelchair user spaces (Newry Leisure Centre)

4 Accessible Sports Facilities and Use Of Facilities

4.1 Sanitary Provision

Overview

The lack of good quality toilet, changing and shower facilities in many existing sports facilities presents a significant barrier to the participation of disabled people in sport. The establishment of sports centres and facilities which provide good quality accessible facilities of a more inclusive design and which also offer a greater degree of choice will undoubtedly be more attractive to disabled people.

Suitable and sufficient toilet provision should be provided for disabled people in sports facilities. This should include provision for independent use and provision for assisted use. Many disabled people do not require all of the facilities provided by a wheelchair accessible WC. The recommendations below focus on the development of toilet amenities of a more inclusive design, which can benefit people with a wide range of abilities, combined with the provision of additional stand-alone accessible units.

Provision of Changing Places toilets in sports facilities will enable many more disabled people, including those with complex and multiple disabilities, to participate in sports activities with their families.

4.1.1 Design of accessible toilets

4.1.1.1 Inclusive toilet blocks

Overview

Wherever a general block of male/female toilets is provided they should be designed to be inclusive of non-disabled people and disabled people.

Recommended Standards

- A wheelchair accessible corner layout WC cubicle for independent use, with minimum dimensions 1700mm by 2200mm.[5] See Figure 8 of this guide for fit-out: Unisex Wheelchair Accessible WC. **Note:** in relation to Technical Booklet R NI 2012, this unit will suffice as an ‘enlarged WC compartment’ where a male or female block contains four or more cubicles.

5 For inclusive toilet provisions in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

- At least one accessible urinal should be at a height suitable for wheelchair users in each male toilet block. At least one accessible wash hand basin should be at a height suitable for both ambulant disabled people and wheelchair users in each male and female toilet block.
- At least one ambulant accessible urinal in each male toilet block where more than two urinals are provided.
- At least one ambulant accessible wash hand basin in each male and female toilet block where more than two wash hand basins are provided.
- See Figure 7 of this guide: Ambulant WC Cubicle; Urinals and Wash Hand Basins (accessible to wheelchair users and ambulant disabled people).
- An ambulant accessible toilet cubicle, with outward opening door swing in each male and female toilet block.
- Contrasting horizontal closing bars fitted to all accessible cubicle doors (set within the range 800mm to 1050mm above floor level; 900mm preferred).

Note: lowered wash hand basins and urinals will also be beneficial for children and people of small stature.

Wheelchair accessible WC cubicle and ambulant accessible WC cubicle incorporated within inclusive toilet block (South Lake Leisure Centre)

Additional Considerations

- One lowered WC pan for use by children should be considered within male/female blocks of toilets. Height should be 380mm.

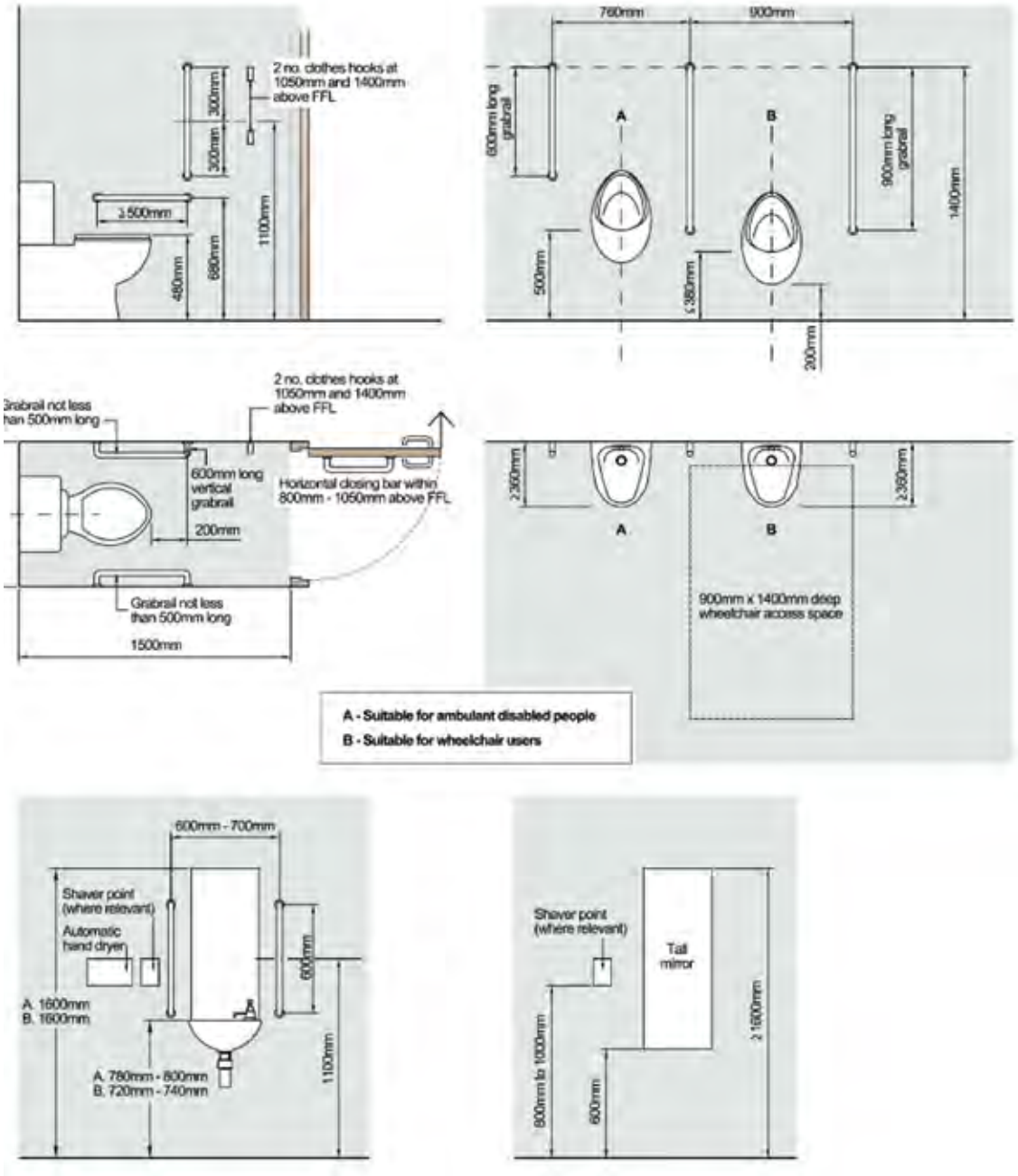


Figure 7 - Ambulant WC Cubicle; Urinals and Wash Hand Basins (accessible to wheelchair users and ambulant disabled people)

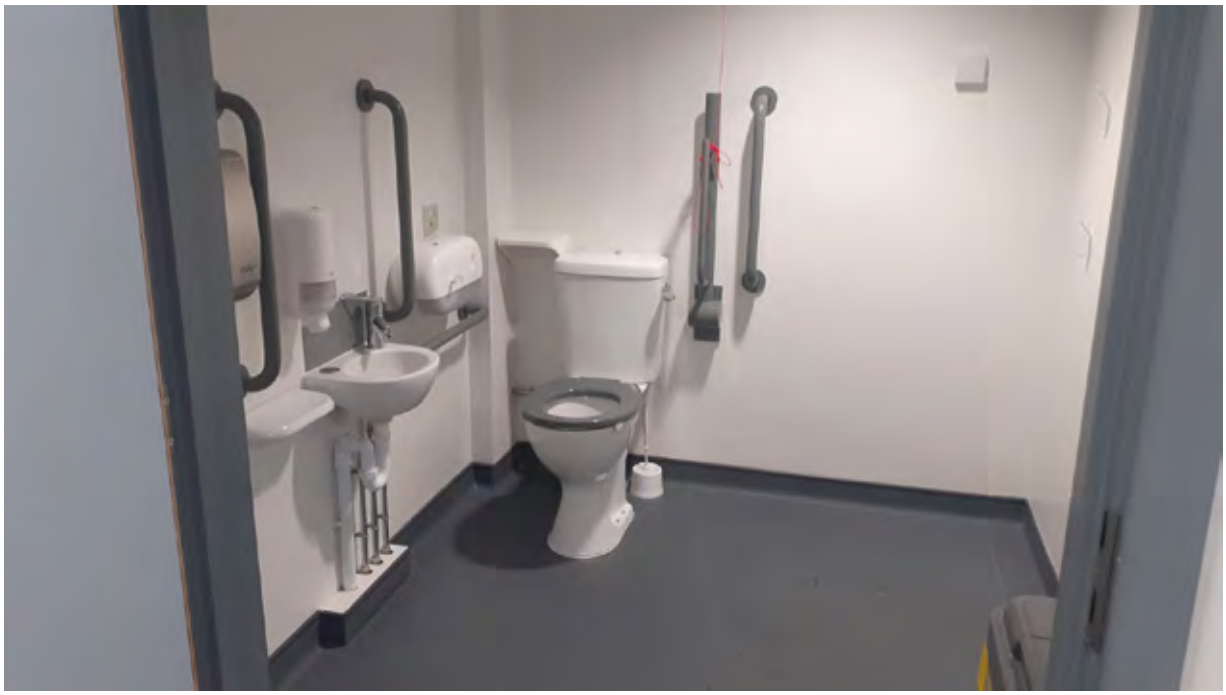
Guidance Signpost

- BS 8300-2:2018. **Paragraph 18.5.3.3** WC compartments or cubicles accessible by people with ambulant mobility impairments, p.126.

Lowered wash hand basin and urinal provisions, including contrasting grabrails, within inclusive toilet areas (Foyle Arena, Derry~Londonderry and South Lake Leisure Centre)

Ambulant accessible WC cubicle within inclusive toilet area (Foyle Arena, Derry~Londonderry)

4.1.1.2 Unisex wheelchair accessible WC unit



Unisex Wheelchair Accessible WC (South Lake Leisure Centre)

Unisex wheelchair accessible WC signs, including tactile symbols, lettering and Braille (South Lake Leisure Centre)

Overview

A self-contained unisex wheelchair accessible WC for independent use should be located outside of, but as close as possible to each general male/female block of toilets in all sports facilities. See Figure 8 of this guide: Unisex Wheelchair Accessible WC.

Recommended Standards

- A self-contained unisex wheelchair accessible corner layout WC, in addition to the provisions within inclusive toilet blocks.
- Minimum dimensions 1700mm wide by 2200mm long. **Note:** turning circles should be increased to 2000mm x 2000mm in wheelchair accessible WC units within sports wheelchair zones.
- Contrasting grabrails fitted in accordance with standards, including horizontal and drop-down rails set at 680mm above floor level.
- Contrasting horizontal closing bars fitted to doors (set within the range 800mm to 1050mm above floor level; 900mm preferred).
- Shelves fitted in accordance with Figure 8 of this guide: Unisex Wheelchair Accessible WC.
- Where there is more than one corner layout accessible WC, provide a choice of left and right hand transfer in corner layout wheelchair accessible WCs and sign to indicate same.
- Horizontal travel distance to a wheelchair accessible WC should be maximum 40m from any point in an area or room where wheelchair users have access.

Guidance Signpost

- BS 8300-2:2018. **Paragraph 18.5.3.1** Unisex wheelchair-accessible toilet with corner WC, p.119-123.

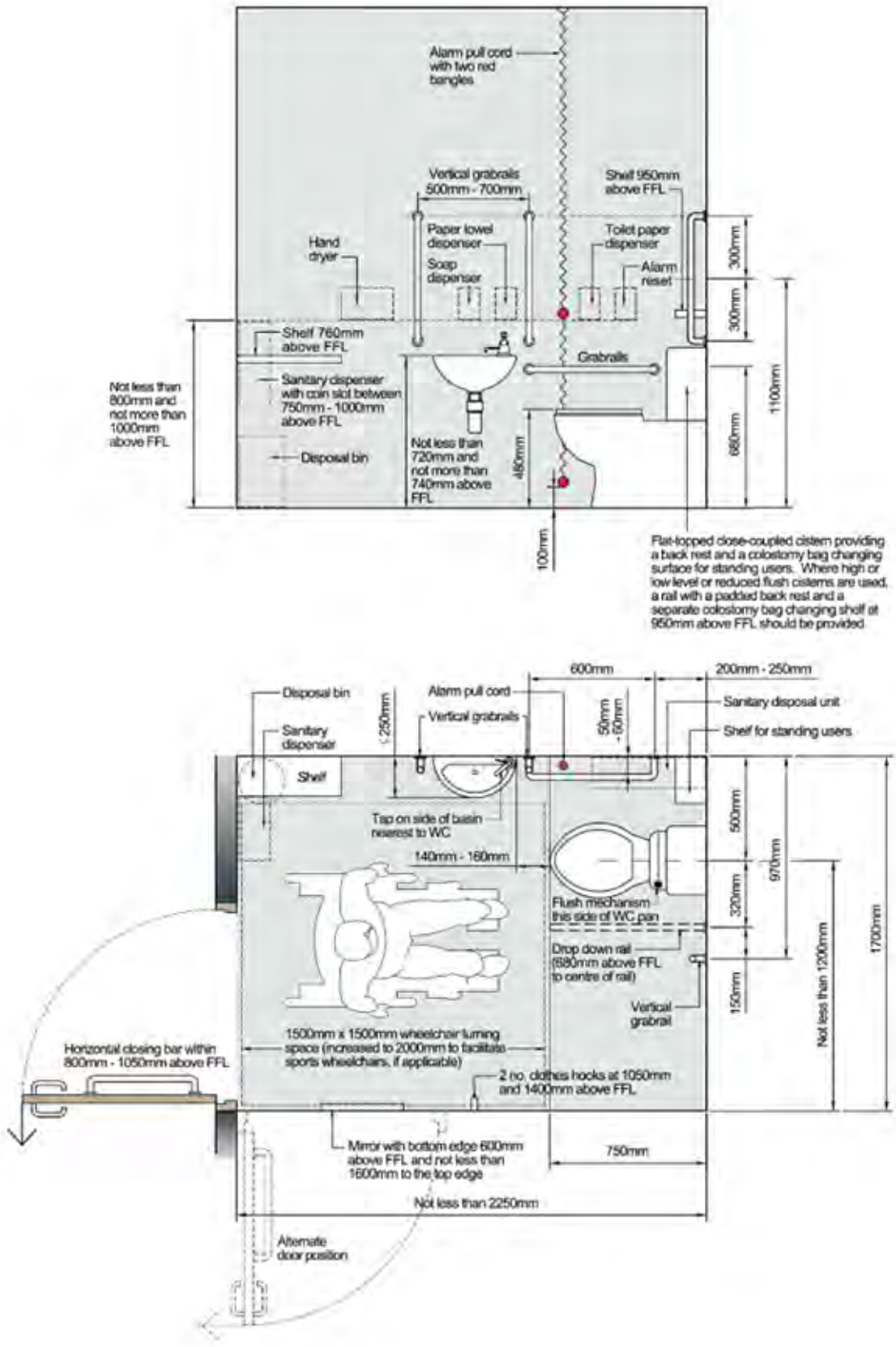


Figure 8 - Unisex Wheelchair Accessible WC

4.1.1.3 Unisex wheelchair accessible peninsular WC for assisted use

Peninsular WC provision (South Lake Leisure Centre)

Sign to denote peninsular WC provision, with left and right hand transfer

Overview

In addition to the requirement for corner layout wheelchair accessible WCs for independent use, wheelchair accessible peninsular layout WCs for assisted use provided in sports facilities will benefit disabled people who require carer or companion assistance in order to use toilet facilities. A wheelchair accessible toilet with peninsular layout WC should not be provided as a substitute for two separate unisex accessible WCs with handed corner layouts, but as an additional facility. See Figure 9 of this guide: Unisex Wheelchair Accessible Peninsular WC for Assisted Use.

Recommended standards

- This WC unit should be located outside of, but as close as possible to, each general male/female block of toilets.

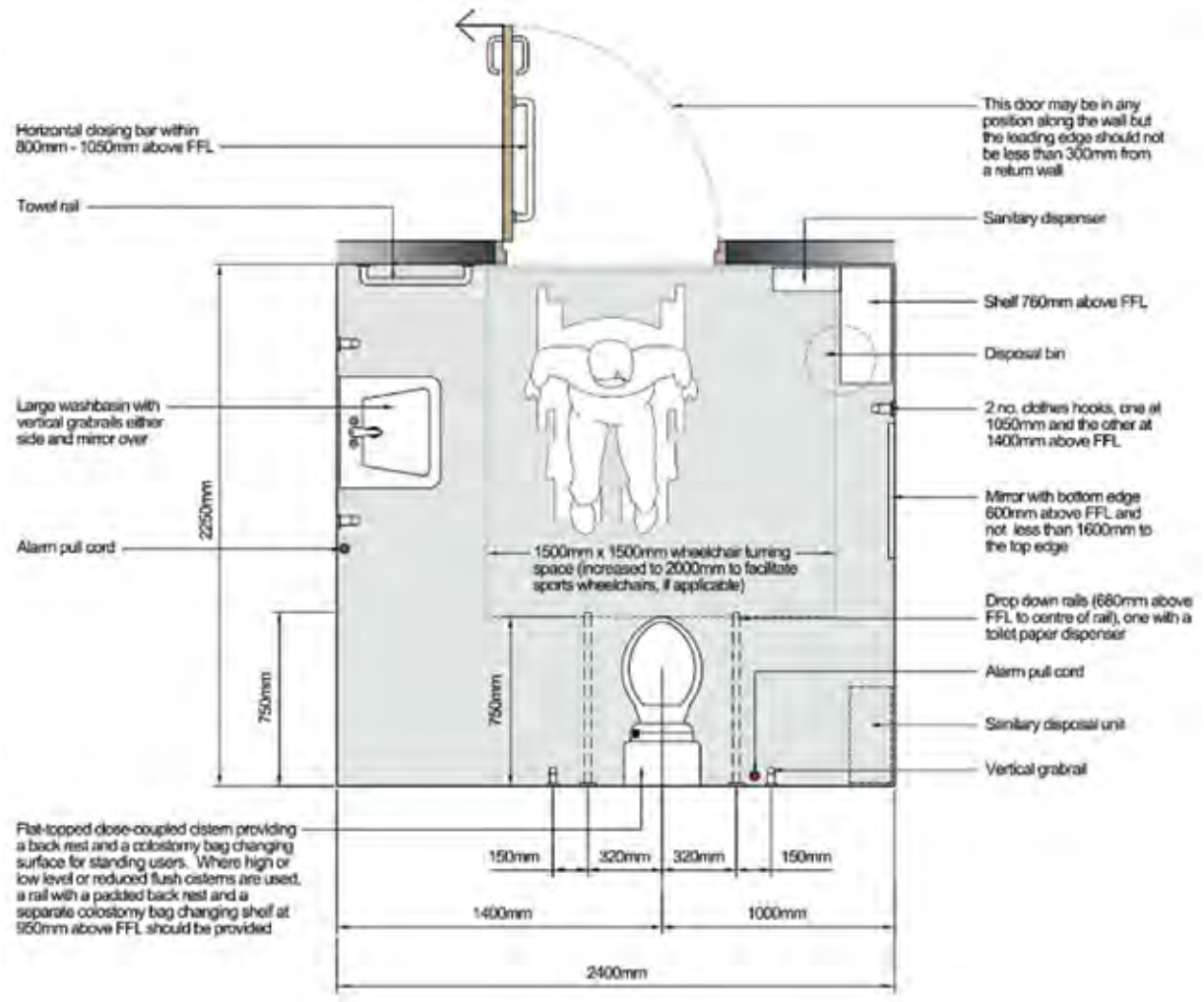


Figure 9 - Unisex Wheelchair Accessible Peninsular WC for Assisted Use

Guidance Signpost

- BS 8300:2009 +A1:2010. **Paragraph 18.5.3.2** Unisex wheelchair-accessible toilet with peninsular WC for assisted use, p.124-125.

Additional Considerations

- Sensor operated taps and soap dispensers for hygiene purposes.
- Tactile surface surround to sensor operated taps/soap dispensers.
- Hand dryers positioned adjacent to basins, not on the opposite wall.
- WC pans wall-mounted, as opposed to pedestal style in wheelchair accessible WCs, to accommodate foot plates during transfer.

Guidance Signpost

- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraphs 6.1, 6.2, 6.8, 6.11, 6.12, 6.16, 6.18, 6.19, 6.21**, p.50-57.

4.2 Changing Places Toilet Facilities

Changing Places Toilet sign
(South Lake Leisure Centre)

Overview

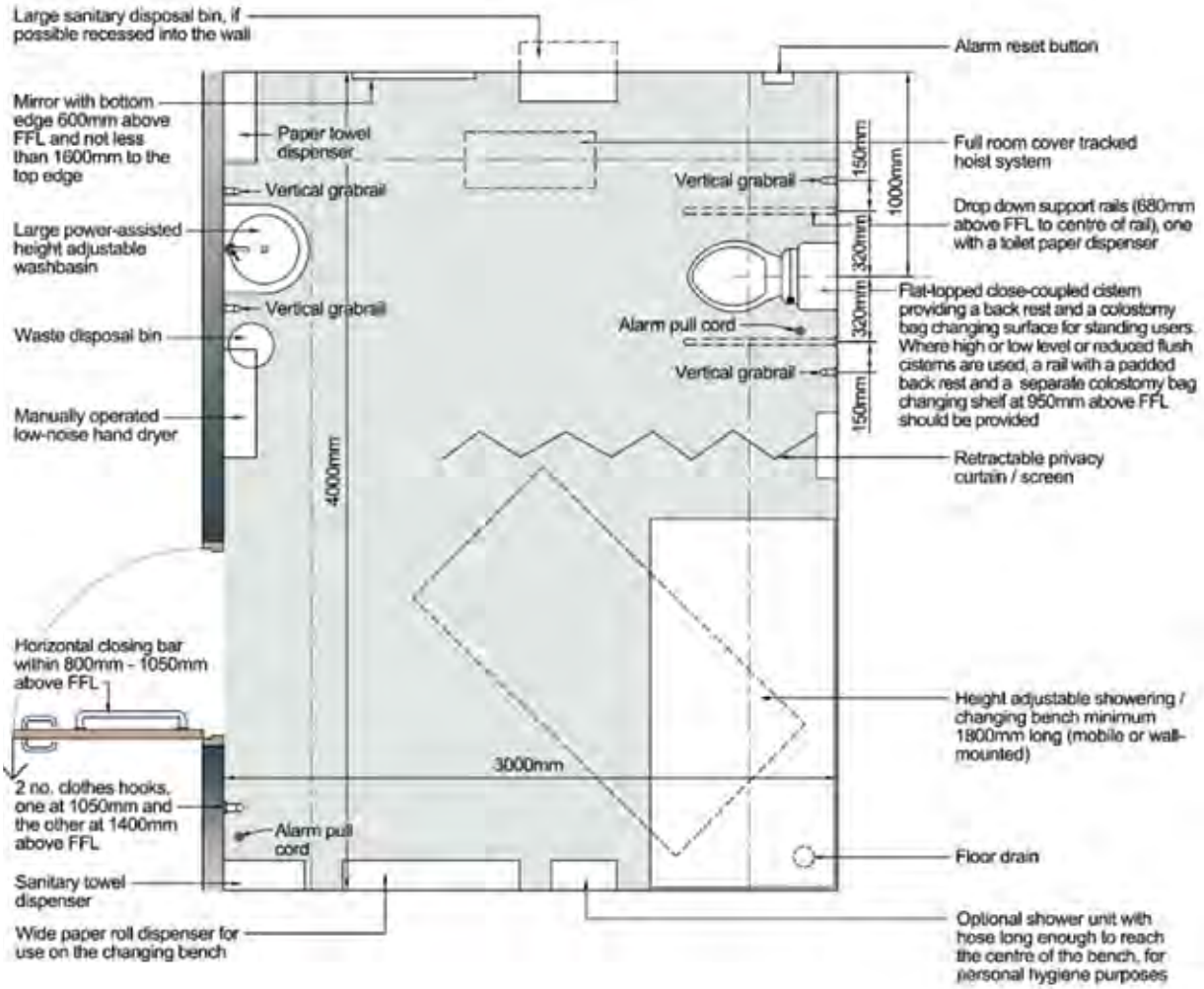
Changing Places toilet facilities should be provided in sports and leisure facilities.

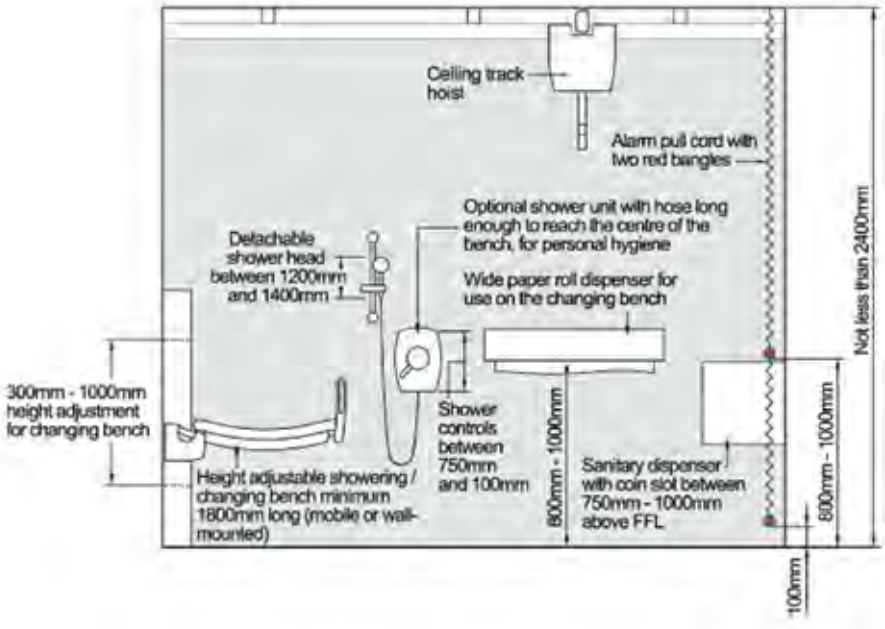
A Changing Places toilet assists many more disabled people, including those with complex and multiple disabilities. It includes an adult-sized changing bench and hoist, in addition to a shower and toilet. **Note:** a freestanding mobile changing bench allows a carer/s to assist from either or both sides and is recommended in sports facilities. It should be height adjustable, electrically operated.

Changing Places toilet facilities in sports and leisure facilities should be registered through Muscular Dystrophy UK and include associated sign logos.

Height adjustable adult-sized wall-mounted changing bench (Newry Leisure Centre)

Changing Places toilet facility with height adjustable adult-sized mobile changing bench (South Lake Leisure Centre)


Large sanitary disposal bin, if possible recessed into the wall
Alarm reset button
Mirror with bottom edge 600mm above FFL and not less than 1600mm to the top edge
Paper towel dispenser
Vertical grabrail
Full room cover tracked hoist system
Vertical grabrail
Drop down support rails (680mm above FFL to centre of rail), one with a toilet paper dispenser
Large power-assisted height adjustable washbasin
Vertical grabrail
Waste disposal bin
Alarm pull cord
Flat-topped close-coupled cistern providing a back rest and a colostomy bag changing surface for standing users. Where high or low level or reduced flush cisterns are used, a rail with a padded back rest and a separate colostomy bag changing shelf at 950mm above FFL should be provided
Vertical grabrail
Manually operated low-noise hand dryer
4000mm
Retractable privacy curtain / screen
Horizontal closing bar within 800mm - 1050mm above FFL
Height adjustable showering / changing bench minimum 1800mm long (mobile or wall-mounted)
3000mm
2 no. clothes hooks, one at 1050mm and the other at 1400mm above FFL
Alarm pull cord
Floor drain
Sanitary towel dispenser
Wide paper roll dispenser for use on the changing bench
Optional shower unit with hose long enough to reach the centre of the bench, for personal hygiene purposes
150mm
1000mm
320mm
320mm
150mm


Ceiling track hoist
Alarm pull cord with two red bangles
Optional shower unit with hose long enough to reach the centre of the bench, for personal hygiene
Detachable shower head between 1200mm and 1400mm
Wide paper roll dispenser for use on the changing bench
300mm - 1000mm height adjustment for changing bench
Shower controls between 750mm and 1000mm
800mm - 1000mm
Sanitary dispensor with coin slot between 750mm - 1000mm above FFL
Height adjustable showering / changing bench minimum 1800mm long (mobile or wall-mounted)
Not less than 2400mm
800mm - 1000mm
100mm

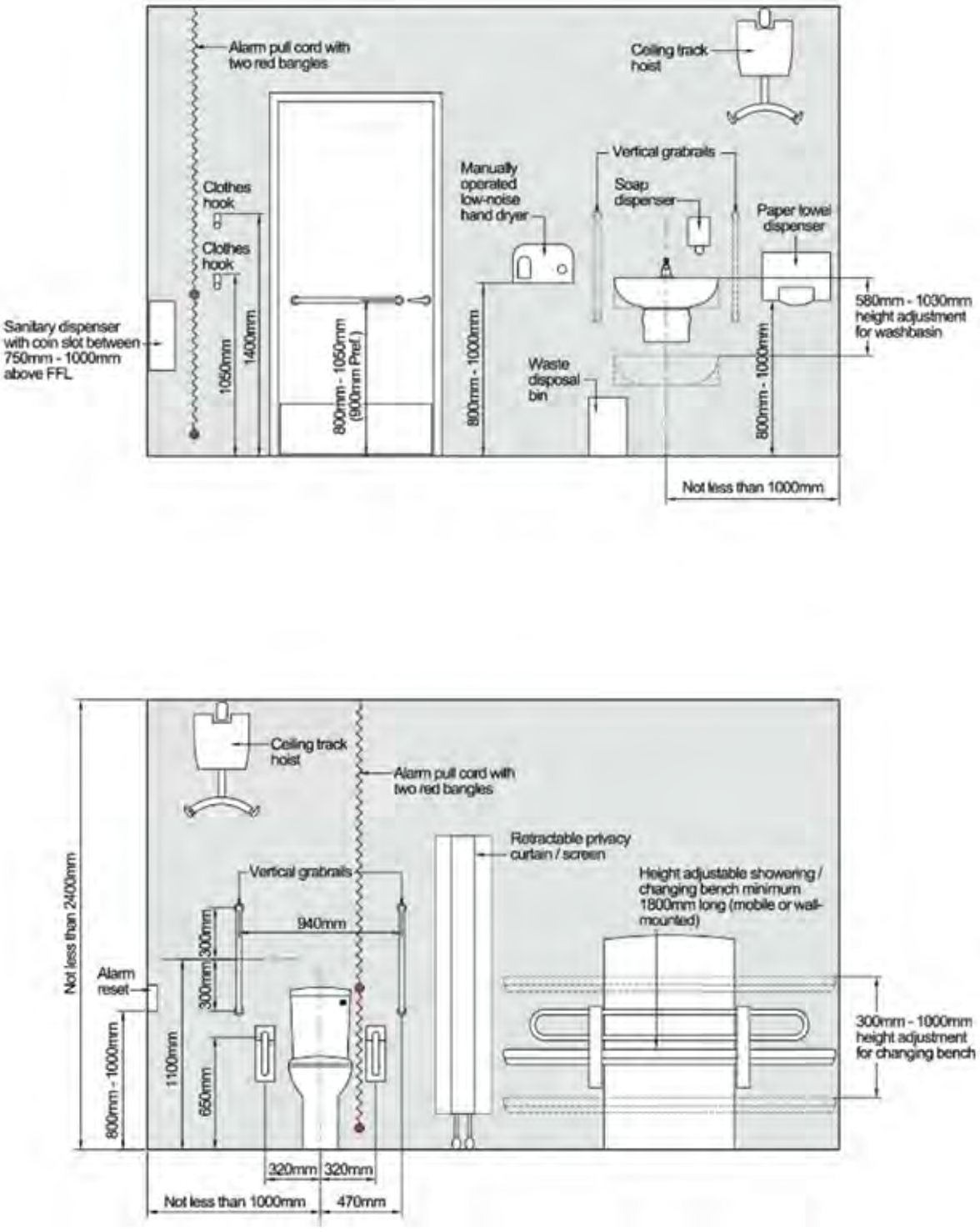


Figure 10 - Changing Places Toilet

Guidance Signpost

- BS 8300-2:2018. **Paragraph 18.6** Changing Places toilets, p131-134.
- www.changing-places.org
- www.musculardystrophyuk.org
- To register a Changing Places Toilet in NI email: changingplaces@musculardystrophyuk.org
- Building Regulations (Northern Ireland) 2012. Amendments Booklet (AMD 8) Amendments to Technical Booklet R. Department of Finance. June 2022.

4.3 Baby Changing Facilities

Parenting room including height adjustable child-sized mobile changing bench, baby changing table and lowered wash hand basin (South Lake Leisure Centre)

Overview

Disabled people require quick and easy access to designated toilet facilities. This is not always possible if facilities are designed as dual purpose i.e. used also for baby changing/feeding. Baby changing can require additional time compared to that of general toileting. Toilet facilities, therefore may not be available when disabled people require to use them. **Note:** the child or the parent may have a disability.

Recommended Standards

- Baby and child changing should be accessible and separate to any Changing Places toilet facility or accessible toilet facilities.
- A height adjustable bench suitable for babies and children should be installed, to solid blockwork walls only (700mm clear space to the underside).
- Wash hand basin 720-740mm above floor level.
- Nappy vending machine with controls maximum 1000mm above floor level.
- A mirror with bottom edge 600mm above floor level and top edge not less than 1600mm above floor level should be provided.

Additional Considerations

- Lowered WC pan for use by children in accessible baby changing units (additional space allowance should be considered to accommodate the extra WC provision). Height should be maximum 380mm.

Guidance Signpost

- BS 8300-2:2108. **Paragraph 18.4** Accessible baby changing facilities, p.116.

4.4 Accessible Changing and Showering

Overview

In sports facilities, changing and shower areas should be of an inclusive design so that they can accommodate people with a range of abilities and provide a degree of choice. A combination of inclusive wheelchair accessible incorporated provision and self-contained unisex accessible rooms should be made available, as outlined in Sections 4.4.1 and 4.4.2 of this guide.[6]

6 For accessible changing and shower areas in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

4.4.1 Inclusive changing areas

Recommended Standards

- Changing areas should be designed to be inclusive and have at least one wheelchair accessible incorporated changing provision. See Figure 11 of this guide: Inclusive Changing Area (with wheelchair accessible incorporated provisions). **Note:** this is in addition to the self-contained unisex provision outlined in Section 4.4.2 of this guide: Self-contained unisex accessible changing/shower/WC rooms.
- Doors into inclusive changing areas should meet the minimum door dimensions specified in Table 3 of this guide: Minimum Internal Door Leaf Width and should be power operated where practicable.
- Where changing cubicles are provided generally, at least one wheelchair accessible changing cubicle should be provided. In Swimming Pools and Large Sports Facilities i.e. sports facilities with more than four courts, or facility with courts and swimming pool/s, consideration should be given to the provision of additional wheelchair accessible cubicles to accommodate increased demand (8% of the total number of cubicles is preferred). Each wheelchair accessible cubicle should have minimum dimensions of 2000mm by 2000mm and meet minimum door dimensions specified in Table 3 of this guide: Minimum Internal Door Leaf Width (outwardly opening doors with contrasting horizontal closing bars set within the range 800mm to 1050mm above floor level; 900mm preferred) **Note:** this is in addition to the self-contained unisex provision outlined in Section 4.4.2 of this guide: Self-contained unisex accessible changing/shower/WC rooms.

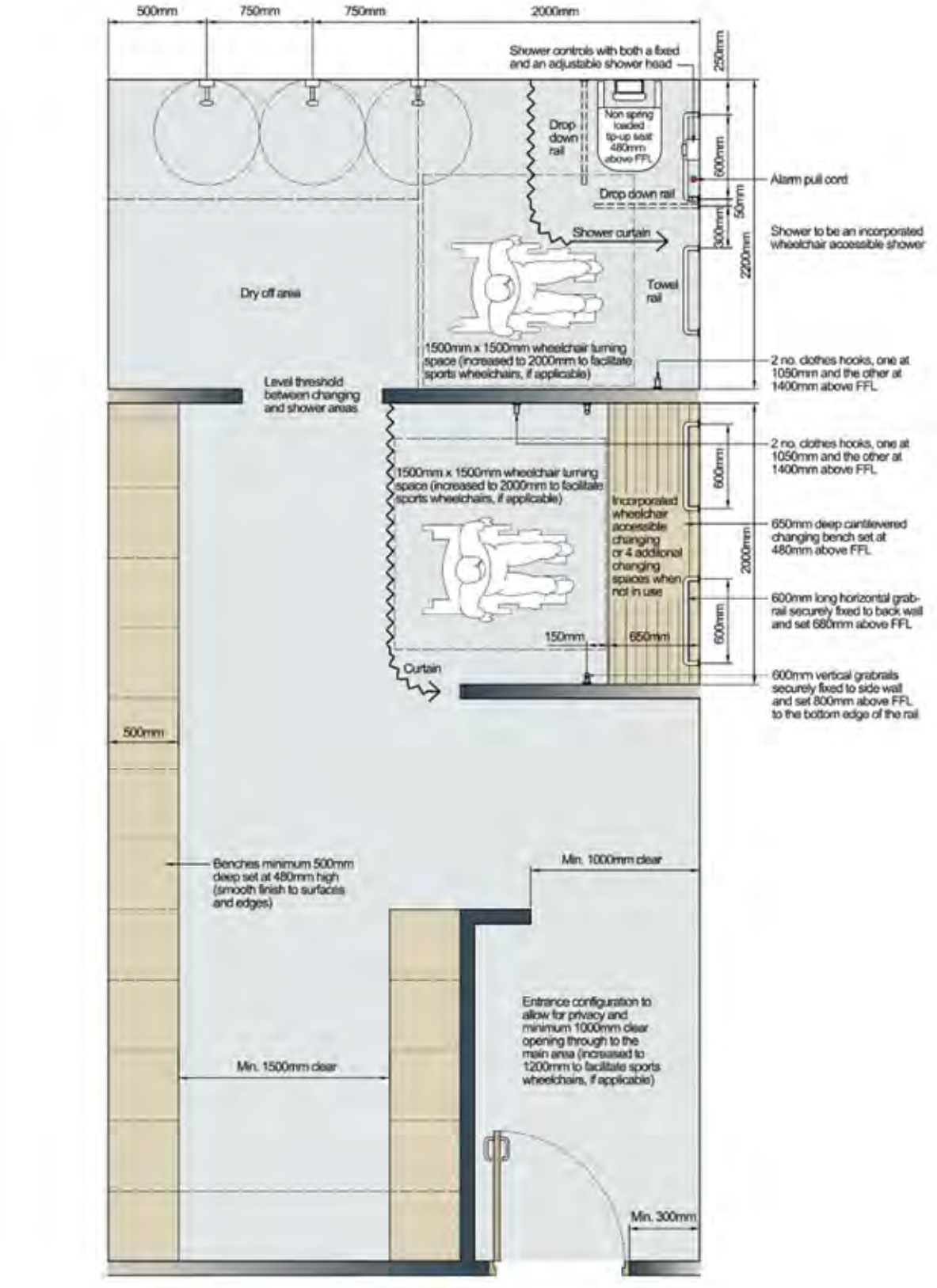


Figure 11 - Inclusive Changing Area (with wheelchair accessible incorporated provisions)

Wheelchair accessible incorporated changing provision within inclusive changing area (Foyle Arena, Derry~Londonderry)

Inclusive (family/ambulant/wheelchair accessible) changing cubicles (South Lake Leisure Centre)

Inclusive graphic to denote inclusive changing cubicles within village changing area (South Lake Leisure Centre)

4.4.1.1 Shower provision

Recommended Standards

- At least one wheelchair accessible incorporated shower, fitted with a tip-up seat and appropriate grabrails, should be provided in *each* location where showers are provided generally. See Figure 11 of this guide: Inclusive Changing Area (with wheelchair accessible incorporated provisions). **Note:** this is in addition to the self-contained unisex provision outlined in Section 4.4.2 of this guide: Self-contained unisex accessible changing/shower/WC rooms.
- Where shower cubicles are provided generally, at least one wheelchair accessible shower cubicle should be provided. Each wheelchair accessible shower cubicle should have minimum dimensions of 2000mm by 2000mm and meet minimum door dimensions specified in Table 3 of this guide: Minimum Internal Door Leaf Width (outwardly opening doors with contrasting horizontal closing bars set within the range 800mm to 1050mm above floor level; 900mm preferred). **Note:** this is in addition to the self-contained unisex provision outlined in Section 4.4.2 of this guide: Self-contained unisex accessible changing/shower/WC rooms.

Inclusive shower zone within male and female changing areas (South Lake Leisure Centre)

4.4.2 Self-contained unisex accessible changing/shower/WC rooms

Accessible WC and shower provisions within self-contained unisex accessible changing/shower/WC room (South Lake Leisure Centre)

Changing bench, hooks and grabrails within self-contained unisex accessible changing shower/WC room (South Lake Leisure Centre)

In sports facilities, self-contained unisex accessible changing/shower/WC rooms are necessary to accommodate people who prefer more privacy, or who may require the assistance of someone of the opposite gender.

Recommended Standards

- At least one self-contained unisex accessible changing/shower/WC room. See Figure 12 of this guide: Self-contained Unisex Accessible Changing/ Shower/WC Room. **Note:** this is in addition to the wheelchair accessible incorporated changing and shower provisions outlined in Section 4.4.1 of this guide: Inclusive changing areas.

- Where single sex male and female changing and shower areas are provided, unisex accessible changing/shower/WC rooms must be located outside of, but close to, the male and female changing and shower areas.
- Where staff facilities are provided, at least one self-contained unisex wheelchair accessible changing/shower/WC room should be available for staff use. However, where it is impracticable to facilitate this, a wheelchair accessible incorporated provision should be included.[7] See Figure 11 of this guide: Inclusive Changing Area (with wheelchair accessible incorporated provisions).
- Doors to self-contained unisex accessible changing/shower/WC rooms should meet the minimum door dimensions specified in Table 3 of this guide: Minimum Internal Door Leaf Width (outwardly opening doors with contrasting horizontal closing bars set within the range 800mm to 1050mm above floor level; 900mm preferred).

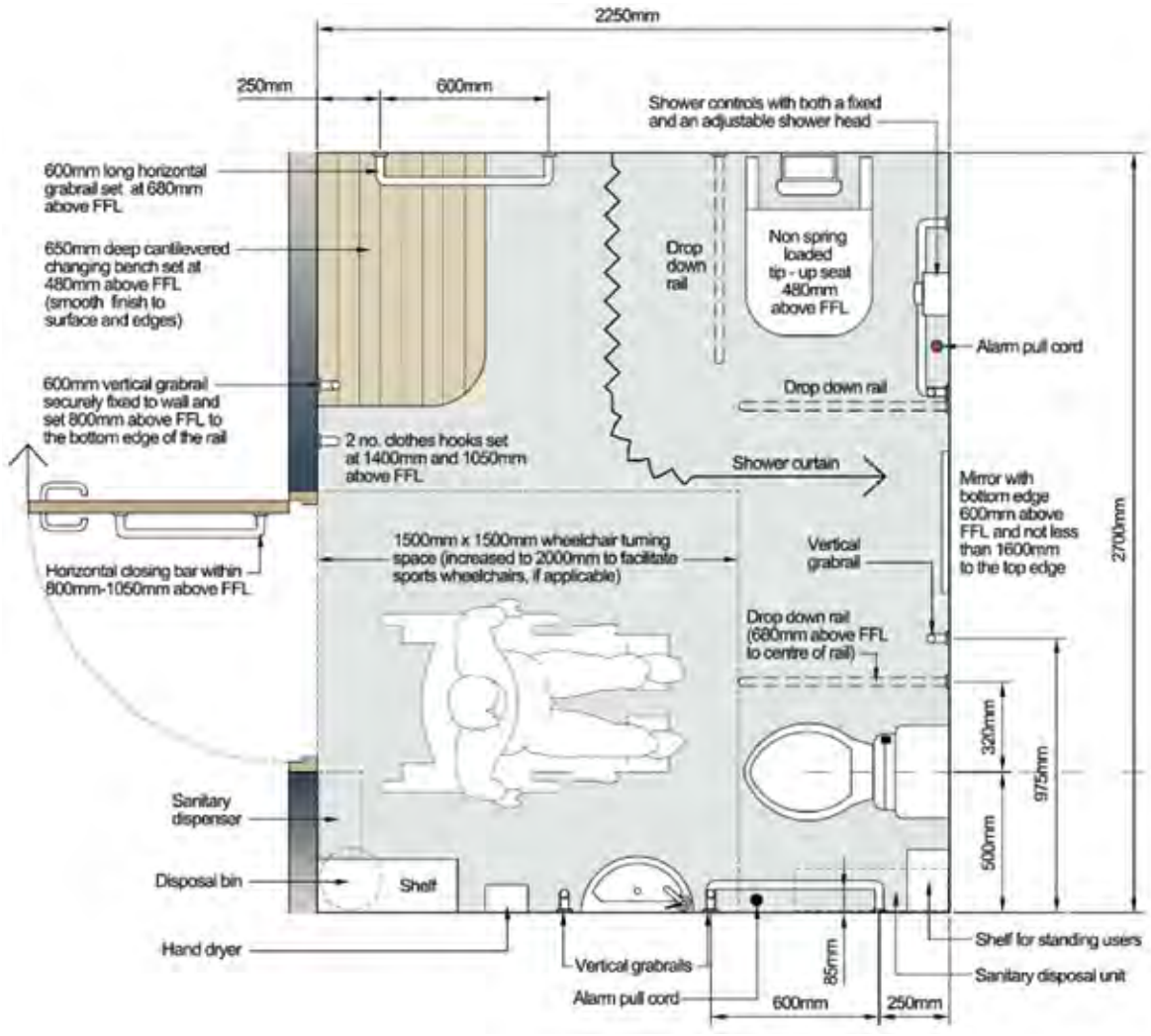


Figure 12 - Self-contained Unisex Accessible Changing/Shower/WC Room

7 For shower provisions in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

4.4.3 Fit-out of inclusive changing and shower areas

4.4.3.1 General

Recommended Standards

- Toilet provision must be available in close proximity to accessible changing and shower areas. See Section 4.1 of this guide: Sanitary Provision.
- Floor finishes must be slip resistant. See Section 4.12 of this guide: Floor Finishes, Run-off and Court Markings.
- A minimum 1500mm by 1500mm manoeuvring space is required throughout inclusive changing areas. Where appropriate, this should be increased to a 2000mm by 2000mm clear manoeuvring space to facilitate users of sports wheelchairs and larger poolside chairs.
- There should be a level threshold between changing and shower areas.

4.4.3.2 Showers

Accessible shower provision within row of standard use pre-swim showers (South Lake Leisure Centre)

Recommended Standards

- Showers must be accessible and easy for all people to use.
- Enough space should be provided to enable transfer from a wheelchair to a tip-up seat. See Figure 11 of this guide: Inclusive Changing Area (with wheelchair accessible incorporated provisions).

- Tip-up seats should be 480mm in height. Vertical struts should not be incorporated.
- Shower controls should be lever operated and located at an accessible height in the range 750mm to 1000mm above floor level.
- Shower heads should be located to ensure adequate water distribution for wheelchair users. There should be a height adjustable shower head in the range 1200mm to 1400mm above floor level and, in self-contained unisex accessible changing/shower/WC rooms, a fixed shower head also.
- A long length shower hose (minimum 2000mm) should be provided in Changing Places toilet facilities.
- Self-propelled waterproof shower chairs should be made available in sports facilities for use in showers and wet areas e.g. this provision enables use in shower zones, at poolside and access/transfer within spa facilities. This is separate to the fixed tip-up seat provision found in each accessible shower. It allows a disabled person to move from a dry area to a wet area easily if that is their preference e.g. a wheelchair user has the option to transfer from their own day chair within a dry changing area into the shower chair and make their way to poolside or wet areas.

Self-propelled wetside/poolside chairs

4.4.3.3 Benches

Recommended Standards

- A bench 480mm in height, minimum 1500mm (2000mm preferred) in length and 650mm in depth should be provided within wheelchair accessible incorporated changing provisions and in wheelchair accessible cubicles. Vertical struts should not be incorporated (supporting walls may need to be locally reinforced to accommodate the cantilevered bench). Elsewhere within the overall inclusive changing area, benches 480mm in height and minimum 500mm in depth should be provided.
- In self-contained unisex accessible changing/shower/WC rooms, a bench 480mm in height and 650mm in depth should be provided.

4.4.3.4 Coat hooks

Recommended Standards

- 1 no. hook 1050mm high and 1 no. hook at 1400mm high is required in self-contained unisex accessible changing/shower/WC rooms, within wheelchair accessible incorporated changing and shower provisions, and in wheelchair accessible cubicles.
- Hooks located at 1400mm high and a provision of hooks located at 1050mm high to facilitate children and wheelchair users, in an inclusive changing area. **Note:** to reduce potential risk, hooks at the lower height of 1050mm specify 'flip' hooks i.e. hooks which flip down when required, otherwise resting flush against their backboard/rail.
- Hooks to contrast visually with the surrounding wall or backboard/rail.

Alternate hooks fitted within inclusive team changing room (contrasting hooks and backboards) - Newry Leisure Centre

4.4.3.5 Lockers

Wheelchair accessible and full height ambulant accessible locker provisions
(South Lake Leisure Centre)

Lockers fitted with large contrasting tactile numbers and Braille (Dunville Park, Belfast)

Accessible locker symbol signs and Braille numbering

Overview

In sports facilities, lockers of varying height will accommodate people with a range of abilities.[8] Lockers with clear kneespace below will assist wheelchair users, whilst longer length (1200mm) and full height (1800mm) lockers offer limb storage for the benefit of amputees.

8 For locker provision in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Recommended Standards

- Where lockers are provided in sports facilities minimum 10% of lockers should be accessible, including:
  - Provision for lockers set at a height to accommodate wheelchair users, including clear kneespace below (in the range 400mm to 800mm above floor level to the underside; 700mm preferred).
  - Provision for lockers at least 1200mm high to facilitate the storage of mobility aids and artificial limbs etc.
  - Provision for 1800mm full height lockers 400mm in width assist people who use mobility aids such as underarm crutches.
- Accessible locker provisions should be available in each location where lockers are provided generally e.g. incorporated within each row/bank of lockers.
- Sports facilities should have some locker provision available to offer limb storage for the benefit of amputees, regardless of whether lockers are provided generally.
- Any self-contained unisex wheelchair accessible changing/shower/WC room should have a fixed storage system for limb storage for the benefit of amputees outside but immediately adjacent to it e.g. full height 1800mm locker.
- Any wheelchair accessible incorporated changing or shower provision should have a fixed storage system for limb storage for the benefit of amputees immediately adjacent to it e.g. full height 1800mm locker.
- Locks to wheelchair accessible lockers should be located no higher than 1150mm above floor level and be fitted with opening devices that are easy to use one handed by a person of limited dexterity, arthritis or weak grip. Locking devices should be large and clear to assist people who are partially sighted.
- Lockers should be fitted with large tactile numbers.
- Accessible lockers should be fitted with contrasting symbol signs, to discourage use by non-disabled people.

4.4.3.6 Grooming areas

Recommended Standards

- Grooming areas should have at least one hairdryer and mirror accessible to wheelchair users.
- Hairdryer controls should be set at a maximum height of 1100mm above floor level.
- A mirror with bottom edge 600mm above floor level and top edge not less than 1600mm above floor level should be provided.

Grooming area provisions within inclusive changing areas
(Newry Leisure Centre and South Lake Leisure Centre)

4.5 Specific Provisions for Pool and Associated Pool Facilities

Overview

Where pools and associated pool facilities are provided in sports facilities, it is important that they can be used by all people, including disabled people and people with mobility difficulties. This includes access into the water.

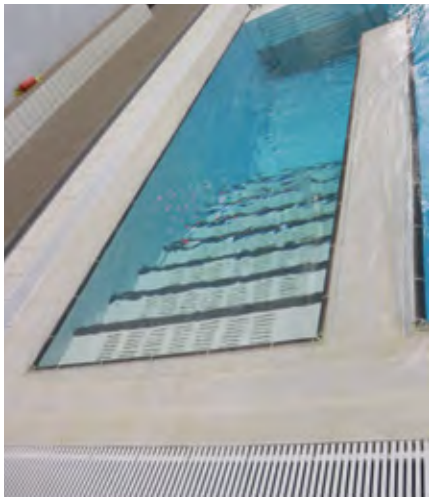
The following provisions should be made to enhance the accessibility of swimming pools and associated spa facilities for a range of user ability:

- Contrasting ramp or easy steps with contrasting nosings and suitably designed contrasting handrails to access pools.
- Submersible platform provision and self-depositing steps to access pools.
- Self-propelled waterproof poolside chairs, for use between changing areas and pool/spa facilities.
- Self-propelled waterproof poolside chairs for use in wet areas e.g. this provision enables use in pool showers, at poolside and access/transfer within spa facilities.

- Access to and within spa facilities e.g. suitable door and access widths to and within sauna, steam room and experience showers, adequate space to enable transfer, adequate turning circle provisions and rest spaces.
- Contrasting clothes/towel hooks at 1050mm and 1400mm above floor level within ice bath areas.
- Discussion with pool equipment suppliers regarding the provision of contrasting nosings to flume slides, and contrasting, easy grip handrails.
- Accessible controls within spa facilities and clear instructional signs consistent with the overall sports facility sign schedule.
- For further information, see also Section 8.9 of this guide: Sports Specific Access Information - Swimming.

Contrasting step nosings and handrails to spa pool (Newry Leisure Centre)

Ceiling tracked hoist provision and steps with handrails and contrasting nosings to vitality pool (South Lake Leisure Centre)



Easy steps (South Lake Leisure Centre)

Submersible pool platform and easy steps adjacent (South Lake Leisure Centre)

4.5.1 Submersible platforms

Overview

Submersible platforms provide access into and out of the water for disabled people and people with mobility difficulties. They can be integrated as part of the pool floor structure, or installed poolside. In facilities with more than one swimming pool, and where it is not possible to install a submersible platform in each pool, the provision of platform anchor points at each pool area can offer flexibility by enabling portable platform systems to be moved between pools as and when required. Pool chairs that can be used to facilitate transfer onto platforms and/or for use on platforms should be provided. It should be noted that hoists are not considered a dignified means of access to swimming pools.

Poolpod (Lagan Valley Leisureplex)

Poolpod (South Lake Leisure Centre)

Poolpod (Joey Dunlop Leisure Centre, Ballymoney)

Guidance Signpost

- BBS 8300-2:2018. **Paragraph 20.8.3** Swimming pools, p.165-166.

4.6 Commercial Activities

Overview

Commercial facilities may be available as part of the overall sports facility provisions. For example, refreshment or catering facilities for customers and/or staff. Such areas should be accessible for all.

Recommended Standards

- The height of any first aid room cupboard, or first aid provisions elsewhere within the sports facility to be within reach for a range of users i.e. with shelf in height range 650-1150mm from FFL.
- Vending machines to have coin slot and selection buttons no higher than 1200mm above floor level (750-1000mm preferred).

Guidance Signpost

- BS 8300-2:2018. **Paragraph 19.1** Kitchen areas, p.135-144.
- BS 8300-2:2018. **Paragraph 20.6** Refreshment buildings, including public houses, restaurants and cafes, p.159.
- BS 8300-2:2018. **Paragraph 20.10.1** Accessible routes and spaces, p.167.

4.7 Fitness Suites and Fitness Equipment

Overview

Physical access to and from fitness suites within sports facilities will be achieved through the implementation of recommended standards outlined in the relevant sections of this document, however the overall accessibility of fitness suites for disabled people can only be achieved if the fitness and conditioning equipment provided is also designed to be inclusive.

Recommended Standards

- To accommodate the access and training needs for a range of disabilities, all fitness suites should provide a range of Cardiovascular and Resistance IFI (Inclusive Fitness Initiative) Accredited equipment. Range of equipment required includes:
  - Cardiovascular Upper Body e.g. upper body ergometer
  - Cardiovascular Lower Body e.g. treadmill and recumbent/recline cycle
  - Cardiovascular Total Body e.g. cross trainer
  - Fixed Lower Body Resistance e.g. leg curl, leg extension and leg press
  - Fixed Upper Body Resistance e.g. chest press, row, shoulder press, lateral pull-down and tricep/bicep curls; or equivalent multi-station
  - Free Movement Resistance Small Equipment Pack, which comprises:
    - Neoprene dumbbells - 0.5kg, 1kg, 2kg, 3kg, 4kg pairs
    - Soft grip dumbbells (with handstrap) - 0.5kg, 1kg pairs
    - Pilates bands - light, medium and heavy
    - Resistance tubes - light, medium and heavy
    - Wrist weights - 0.5kg, 1kg pairs
    - Ankle weight - 2kg pair
    - Gym ball stabiliser
    - Air disc
    - Squeeze balls (Pack of 3)
    - Core/stabiliser tube - light, medium and heavy
    - Pilates ring
  - Where IFI accredited pieces are located, there should be good space to and around each piece of equipment to assist movement and transfer.
  - A clear area for using small equipment pack items or for floor exercise should be provided.

- Include a section of support handrail to assist people recovering from injury, or older people.
- Edges of equipment projections could be highlighted to identify potential hazard e.g. run-off areas of treadmills or pieces at eye level. This can assist all users, including people with low vision.
- Provide fixed threshold strip to eliminate any stepped edge to matting eg between the fitness equipment floor and the strength and conditioning area.
- Provide items such as gloves and hand/foot straps.
- Specifications should be selected to accommodate people with a range of abilities eg water fountain with accessible water spout and lever controls; wash hand basin set within the range 720mm to 740mm above floor level and paper towel dispenser within the range 750mm to 1000mm above floor level. **Note:** the use of sensor operated fittings is recommended for ease of use and hygiene purposes.

Minimum IFI Accredited Equipment Requirements		
Cardiovascular Equipment is required across each of the following workout areas: • Upper Body • Lower Body (Standing) • Lower body (Seated) • Total Body		
Workout Type	**Equipment Types**	**Minimum Percentage Required**
CV Upper Body	• Upper Body Ergometer/Cycle • Rope Pulley Unit • Rowing Machine (with upper body only option)	20%
CV Lower Body (Standing)	• Treadmill • Lower Body Elliptical • Lower Body Stepper/Climber	20%
CV Lower Body (Seated)	• Recumbent Bike • Upright Bike	20%
CV Total Body	• Total Body Ergometer/Cycle • Total Body Cross Trainer • Total Body Stepper/Climber • Rowing Machine	20%
Minimum 20% of overall CV equipment pieces to be IFI Accredited equipment		

<table>
<tr><th colspan="3">Minimum IFI Accredited Equipment Requirements</th></tr>
<tr><td colspan="3">Resistance
Equipment is required across each of the following workout areas:
• Fixed Lower Body
• Fixed Upper Body
• Free Movement</td></tr>
<tr><th>Workout Type</th><th>Equipment Types</th><th>Minimum Required</th></tr>
<tr><td>Fixed Lower Body</td><td>• Leg Press
• Leg Extension
• Seated Leg Curl</td><td>Provide all 3:
• Leg Press
• Leg Extension
• Seated Leg Curl</td></tr>
<tr><td>Fixed Upper Body</td><td>• Chest Press
• Seated Low Row
• Lat Pulldown
• Shoulder Press
• Tricep Curl
• Bicep Curl</td><td rowspan="3">And choose 1 Option:
Chest Press
Seated Low Row
Lat Pulldown
Shoulder Press
1 Multi-function Adjustable Cables (Single or Multiple Weight Stack)
Small Equipment Pack
Or
Chest Press
Seated Low Row
Tricep Press or Bicep Curl
1 Multi-function Adjustable Cables (Single or Multiple Weight Stack)
Small Equipment Pack
Or
Chest Press
Seated Low Row
1 Multi-function Adjustable Cables (Multiple Weight Stack)
1 Multi-function Flexibility/ Stretch
Small Equipment Pack</td></tr>
<tr><td>Free Movement Resistance</td><td>• Multi-function Adjustable Cables (Single Weight Stack)
• Multi-function Adjustable Cables (Multiple Weight Stack)
• Small Equipment Pack
• Vibration Training Platform
• Dumbbells Rack and Bench
• Core/ Balance
• Multi-function Flexibility/ Stretch</td></tr>
<tr><td>Note: Free Movement Resistance Small Equipment Pack comprises:</td><td>• Neoprene dumbbells - 0.5kg, 1kg, 2kg, 3kg, 4kg pairs
• Soft grip dumbbells (with hand strap) - 0.5kg, 1kg pairs
• Pilates bands - light, medium and heavy
• Resistance tubes - light, medium and heavy
• Wrist weights - 0.5kg, 1kg pairs
• Ankle weight - 2kg pair
• Gym ball stabiliser
• Air disc
• Squeeze balls (Pack of 3)
• Core/stabiliser tube - light, medium and heavy
• Pilates ring</td></tr>
</table>

<table>
<tr>
<td>Fixed Upper Body</td>
<td>• Chest Press
• Seated Low Row
• Lat Pulldown
• Shoulder Press
• Tricep Curl
• Bicep Curl</td>
<td rowspan="3">And choose 1 Option:
Chest Press
Seated Low Row
Lat Pulldown
Shoulder Press
1 Multi-function Adjustable Cables (Single or Multiple Weight Stack)
Small Equipment Pack
Or
Chest Press
Seated Low Row
Tricep Press or Bicep Curl
1 Multi-function Adjustable Cables (Single or Multiple Weight Stack)
Small Equipment Pack
Or
Chest Press
Seated Low Row
1 Multi-function Adjustable Cables (Multiple Weight Stack)
1 Multi-function Flexibility/ Stretch
Small Equipment Pack</td>
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<tr>
<td>Free Movement Resistance</td>
<td>• Multi-function Adjustable Cables (Single Weight Stack)
• Multi-function Adjustable Cables (Multiple Weight Stack)
• Small Equipment Pack
• Vibration Training Platform
• Dumbbells Rack and Bench
• Core/ Balance
• Multi-function Flexibility/ Stretch</td>
</tr>
<tr>
<td>Note: Free Movement Resistance Small Equipment Pack comprises:</td>
<td>• Neoprene dumbbells - 0.5kg, 1kg, 2kg, 3kg, 4kg pairs
• Soft grip dumbbells (with hand strap) - 0.5kg, 1kg pairs
• Pilates bands - light, medium and heavy
• Resistance tubes - light, medium and heavy
• Wrist weights - 0.5kg, 1kg pairs
• Ankle weight - 2kg pair
• Gym ball stabiliser
• Air disc
• Squeeze balls (Pack of 3)
• Core/stabiliser tube - light, medium and heavy
• Pilates ring</td>
</tr>
</table>

Table 6 – Minimum IFI Accredited Equipment Requirements

IFI Accredited Fitness Equipment (Lakeland Forum, Enniskillen)

Examples of fitness suite and GP Referral room equipment, including IFI Accredited pieces (South Lake Leisure Centre)

Guidance Signpost

- Accessible Sports Facilities, Design Guidance Note. **Section 16** Fitness suite: Screening area, Mirrors, Equipment layout, Stretch area, Rest area, Air conditioning, p.69-70. Sport England Publications, Wetherby. Sport England 2010.
- www.activityalliance.org.uk/how-we-help/programmes/ifi-fitness-equipment

4.8 Public Telephones

Overview

In sports facilities where public telephones are provided, they should be located close to the reception area and at least one should be located at an accessible height for disabled people, fitted with an induction coupler that is identified using a symbol sign.[9]

9 For public telephones in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Guidance Signpost

- BS 8300-2:2018. **Paragraph 15.6** Public telephones and internet booths, p.76-78.

4.9 Outlets, Switches and Controls

Overview

In order to facilitate wheelchair users and other disabled people the location, type and height of outlets, switches and controls should be in accordance with Building Regulations.[10]

Recommended Standards

- See Figure 13 of this guide: Outlets, Switches and Controls.
- Where possible, lighting in internal rooms to which the public have access should be motion sensor activated. If use of outlets, switches and controls is unavoidable, they should be designed in accordance with Building Regulations.
- Manual activation controls for power operated doors should be contrasting against the wall or barrier rail surface and located between 750mm and 1000mm above floor level. They should be located as close to the door as possible without causing a safety hazard when the door swings open e.g. risk of collision with wheelchair users and people who are blind or partially sighted.
- As a minimum, emergency assistance alarms should have a red-coloured pull cord with two red-coloured 50mm diameter bangles. The lower bangle should be set at a height of 100mm above floor level and the upper bangle should be located not less than 800mm and not more than 1000mm above floor level. Low level alarm conduits are also useful as an addition.
- Emergency alarm reset buttons should be set in the range 800mm to 1000mm above floor level (to the underside). Alarm reset marking should be tactile and visual.
- A light cord pull switch should have a 50mm diameter bangle attached at a height between 900mm and not more than 1100mm above floor level. The bangle should be distinguishable through suitable visual contrast, from the background against which it is seen. The pull cord and the bangle should be distinguishable visually from any emergency assistance alarm pull cord.

10 For outlets, switches and controls in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

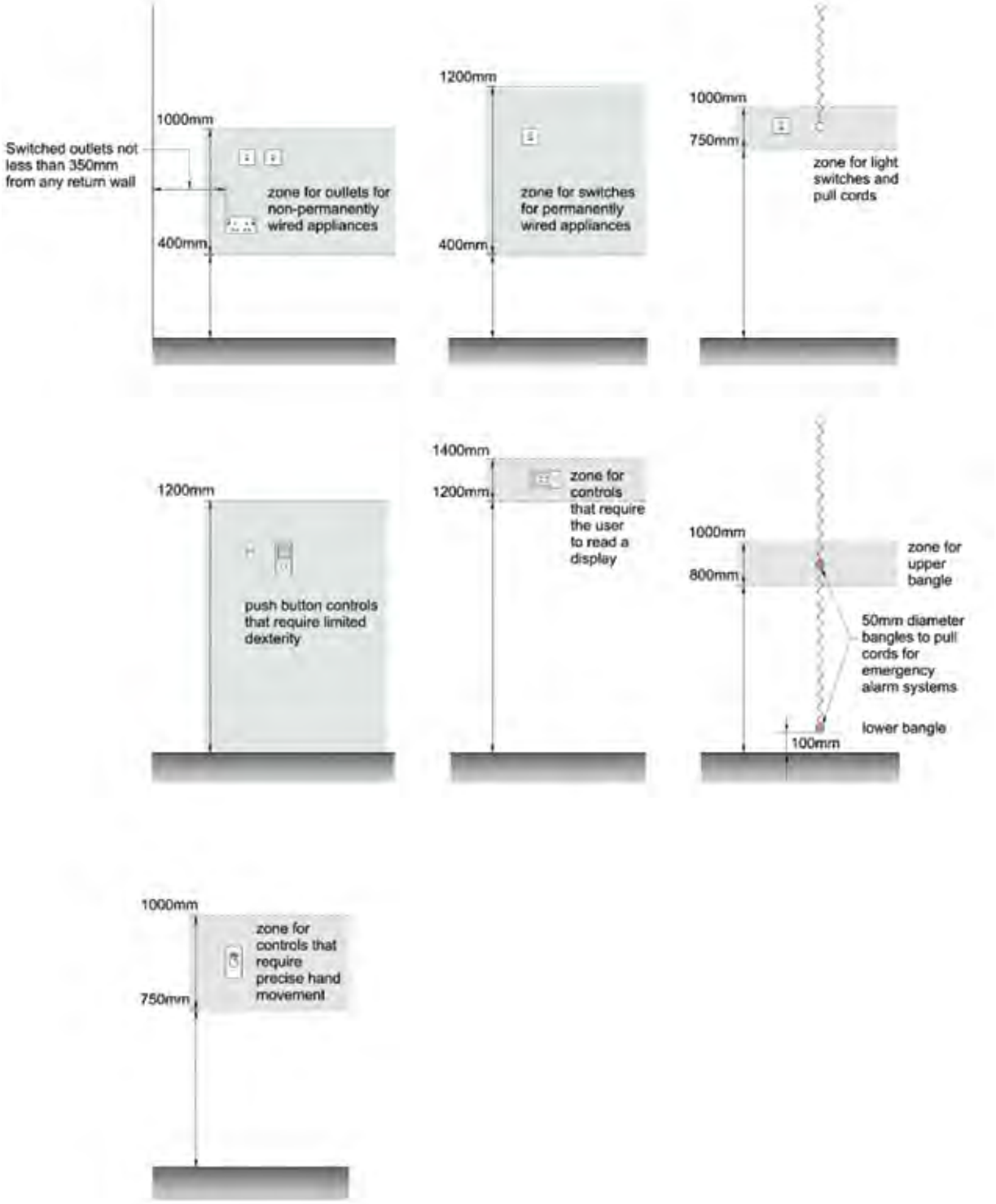


Figure 13 - Outlets, Switches and Controls

Outlets and switches showing visual contrast (South Lake Leisure Centre)

Guidance Signpost

- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraph 3.20**, p.24 & **Paragraphs 5.38 - 5.46**, p.46-48.

4.10 Lighting

Overview

Good lighting design is very important to assist all people, including people who are partially sighted, to use sports facilities effectively and safely. Poor lighting design can cause poor visibility in a dull or dark environment, but also where there is excessive reflection or glare and where it creates shadows on floors or other surfaces, which may present a hazard. Good lighting design can be achieved by controlling the location, quality and quantity of natural and artificial light within a building.[11]

Recommended Standards

- Levels of lighting in accordance with standards should be provided externally and on all circulation routes e.g. along internal corridors.
- Artificial lighting should be designed to produce adequate lux levels, including within specific areas such as stairways and lifts. Illuminance at tread level should be minimum 100 lux; the general lighting level in toilet accommodation should be minimum 100 lux at floor level and 100 lux to 300 lux in changing and shower areas (i.e. the amount of light illuminating the surface at tread level).

11 For lighting in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

- Both natural and artificial lighting should be controlled to avoid glare, pools of bright light and strong shadows.
- Artificial lighting should be designed to provide good colour rendering on surfaces.
- Where possible, lighting in internal rooms to which the public have access should be activated by sensitivity to movement e.g. Microwave presence sensors will detect even small movements in the extremities of a space. Recommended equipment would have an off time of 60 minutes in areas where disabled people have access, to avoid people being left without light.
- Avoid light sources that produce glare, e.g. wall uplighters located at floor or low level should be avoided as they may produce glare on surfaces, which can obscure vision.
- Where used, downlighters should be carefully located so as not to produce strong shadows.
- The illumination of floor surfaces should be as uniform as possible minimising the potential for shadows, reflection or glare, including on steps and stairs.
- In areas where one-to-one communication is important e.g. in reception areas, to aid lip reading lighting should illuminate the face of the person speaking (e.g. visitor assistant).
- Fluorescent lights may cause a 'humming' noise that can be heard by hearing aid users. This should be minimised by using high frequency fittings.
- Floodlighting should be avoided in areas where direct customer engagement takes place.
- People can lose vision as a result of lighting positioned within direct line of sight, therefore careful siting is required.
- Designers should be aware that the use of glass and steel can distort lighting.
- Light bulbs that involve a time delay on start-up should not be used e.g. time delay can be problematic for assistance dog owners and people who are partially sighted.
- Designers and management should be aware that strobe lighting can be particularly problematic for people who are partially sighted and people who have photosensitive epilepsy. See Disability Sport NI Guide 2: Accessible Sports Facilities Management Guidelines; Staff Training Policy.

Guidance Signpost

- BS 8300-1:2018. **Paragraph 11** Surface finishes, p.52-54.
- BS 8300-2:2018. **Paragraph 14** Lighting, p.65-66.
- Lighting Guide 04: Sports Lighting. Society of Light and Lighting SLL LG4. CIBSE.
- Code for Lighting. CIBSE. The Society of Light and Lighting.
- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 11** Light, lighting and reflection.

4.11 Visual Contrast

Overview

Achieving visual contrast between surfaces in and around sports facilities e.g. floor, wall, door, ceiling surfaces and fixtures, will increase the ability of people who are partially sighted and people with neurological processing difficulties to navigate around buildings independently. Vision can be enhanced through appropriate use of colour, luminance (brightness) and surface texture.

Adequate Light Reflectance Values (LRVs) must be provided (generally minimum 30 points, however Disability Sport NI recommends that as far as possible this be exceeded during selection of colour and surface finish specifications).

Recommended Standards

- Finishes that contrast with each other in terms of colour and tone should be used to differentiate between floors, walls, doors and ceilings.
- The colour of walls should be different from that of the ceiling and the floor.
- Doors and their frames should contrast visually with the surrounding wall.
- Where doors are designed and installed to be capable of being held-open, or where self-closers are not installed, the leading edge of doors should contrast with the rest of the door.
- Skirting should contrast visually with the floor finish, but may match or be similar in colour and tone to the wall surface.
- Corridor ends should be finished with a contrasting colour to denote a change in direction.

- Outlets, switches and controls should be distinguishable from the surrounding wall.
- Grabrails e.g. in accessible toilet units, should contrast visually with the surrounding wall surface.
- Horizontal closing bars to outwardly opening doors should contrast visually with the door leaf.
- Where viewing areas are provided, contrasting row and seat numbering should be provided on seats and at ground level.
- In washroom and toilet areas, provide visual contrast between fixtures/ fittings and the background wall surface and between fittings and flooring.

Guidance Signpost

- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraphs 1.9, 3.4a, 3.15a, 3.2a, 4.7b(i), 4.16 - 4.18, 4.27(c), 4.28(b), 4.36, 5.40, 5.45, 6.9**.
- The Colour, Light and Contrast Manual. Designing and Managing Inclusive Built Environments. Keith Bright and Geoffrey Cook.
- Access for All: Opening Doors. A guide to support your sports club to improve physical access for disabled people. **Section 4.4.1** Visual contrast, p.30.
- BS 8300-2:2018. **Annex B** (informative) Using light reflectance values (LRVs) to assess visual contrast, p.175-179.
- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 12** Surface finishes.

4.12 Floor Finishes, Run-off and Court Markings

Overview

The provision of floor finishes which facilitate the safe and easy use of sports facilities by disabled people, including wheelchair users, ambulant disabled people and people who are blind or partially sighted is very important.[12]

Disability Sport NI recommends that each district council area should have at least one sports facility with a sports hall comprising wooden flooring to facilitate competitive wheelchair sports and training.

12 For floor finishes in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Recommended Standards

- Large District Council Sports Facilities require a sprung wooden sports floor. This type of floor can accommodate a range of wheelchair sports including competitions and club training, as well as recreational use and is the preferred choice of Disability Sport NI. For facilities with this type of flooring the following minimum court run-off area is required:
  - 3m run-off at end lines;
  - 2m run-off at side lines.
- Smaller District Council Facilities or Private/Community Sports Facilities require a sprung sports floor finished with a solid synthetic surface (Polyurethane (PU), sport linoleum or sport vinyl). This type of floor is not recommended for facilities where competitive wheelchair sports competition and training is envisaged, but is acceptable for recreational wheelchair sports activities and casual training sessions. For facilities with minimum court run-off area is required:
  - 2m run-off at end lines;
  - 2m run-off at side lines.
- Hard unfinished surfaces should be sealed and slip resistant.
- Floor finishes should be firmly fixed.
- Flooring should provide a firm foothold and good wheel grip. It is recommended that level dry floors should have a minimum Slip Resistance Value (SRV), also known as Pendulum Test Value (PTV), of 40. In areas that may become wet, such as entrances, changing/shower areas and poolside areas, flooring should have a minimum value of 65.
- High gloss floor finishes should be avoided as they produce glare and may be perceived as being wet and slippery even if they have a slip resistant surface.
- Where used e.g. in meeting rooms, carpets should have a shallow dense non-directional pile that will not restrict the movement of wheelchair users or present a tripping hazard to people using crutches, long canes or walking sticks/frames.
- Circulation routes should be clearly distinguishable from waiting/rest seating areas.
- Where matwells are provided the mat surface should be fixed and flush with the surrounding floor surface. Loose mats are not acceptable.
- Changes in floor colour should be used to identify a potential hazard, such as changes in level or glass screen partition locations.
- Wherever possible, floor surface colour should be used to define spatial characteristics and, where appropriate, to warn of potential hazards or assist wayfinding by giving directional information.
- Floor patterning that could be mistaken for steps, e.g. stripe patterns, should not be used.

- For floor finishes that facilitate competitive wheelchair sports see Section 8 of this guide: Sports Specific Access Information.
- Where courts are being marked out for a range of sports, it is recommended that permanent floor markings should include at least one boccia court in Smaller District Council, Private/Community Sports Facilities. However, four boccia courts are recommended in Large Sports Facilities and where competitive boccia sport competition and training will be played.

Guidance Signpost

- Internal Floor Finishes. Specifiers' Handbooks for Inclusive Design. Centre for Accessible Environments. RIBA Publishing. 2006.
- Safer surfaces to walk on - reducing the risk of slipping (C652). CIRIA. 2006 +supplemental update 2010.
- BS 8300-2:2018. **Paragraph 8.6.1** Entrance flooring systems, p.31.
- BS 8300-2:2018. **Paragraph 11.3** Floor surfaces, p.53-54.
- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 12.6** Floor finishes.

4.13 Acoustics

Overview

Successful acoustic design can reduce confusion and discomfort for disabled people navigating around and using sports facilities e.g. people who have a hearing loss, people with neurological difficulties such as autism and people with dementia or learning difficulties. It is an important element that should be built into the design process.

Where public address systems are installed e.g. in reception areas, materials offering sound adsorption characteristics should be selected.

Guidance Signpost

- BS 8233:1999. Sound Insulation and Noise Reduction for Buildings.
- BS 8300-2:2018. **Paragraph 11.2** Materials and acoustic design, p.53.
- Accessible Sports Facilities, Design Guidance Note. **Section 16** Fitness Suite: Entertainment, p.70. Sport England Publications, Wetherby. Sport England 2010.
- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 10** Acoustics and noise management.

4.14 Facilities for Assistance Dogs

Overview

Whilst assistance dogs are commonly associated with a 'guide dog' for people who are blind or partially sighted, they can also assist a wide range of individuals with other needs. For example, these dogs can be hearing dogs for people who are deaf or have hearing loss, support/service dogs for people with physical disabilities, and medical alert assistance dogs to support individuals with complex health conditions who have limited awareness of an impending life-threatening medical event. An assistance dog provides a specific service to its owner and greatly enhances its owner's ability to lead a more independent lifestyle.

Assistance dogs are highly trained working dogs and will wear an identification bib, harness/jacket and tag when they are working, making them easy for sports facility operators and staff members to identify. Assistance dogs have well established toileting routines, so they are unlikely to foul in a public place.

Provision for the needs of assistance dogs should be made in sports facilities.

4.14.1 Outdoors - Assistance Dogs toileting facilities

Overview

A dog toileting facility is a designated area where assistance dogs can relieve themselves.

Recommended Standards

- The dog toileting facility should be a secure enclosed area minimum 3000mm by 4000mm. It should be located in reasonable proximity to the entrance, but within a private/non-distracting area.[13]
- It should preferably comprise 50% grass surface and 50% hard standing. **Note:** in certain facilities, 100% hard standing may be acceptable, therefore consult with Guide Dogs NI on the use of alternative surface options on a site specific basis.
- A sign should be clearly displayed to denote 'Assistance Dogs Only'.
- Provide a crossfall gradient to assist drainage, maximum 1 in 50.
- The entrance gate should be minimum 1200mm wide and have an opening mechanism that is easy to locate, grip and operate.
- Secure boundary fencing offering good visibility should be installed, minimum 1200mm high.
- Provide a water supply, hose and a disposal bin.

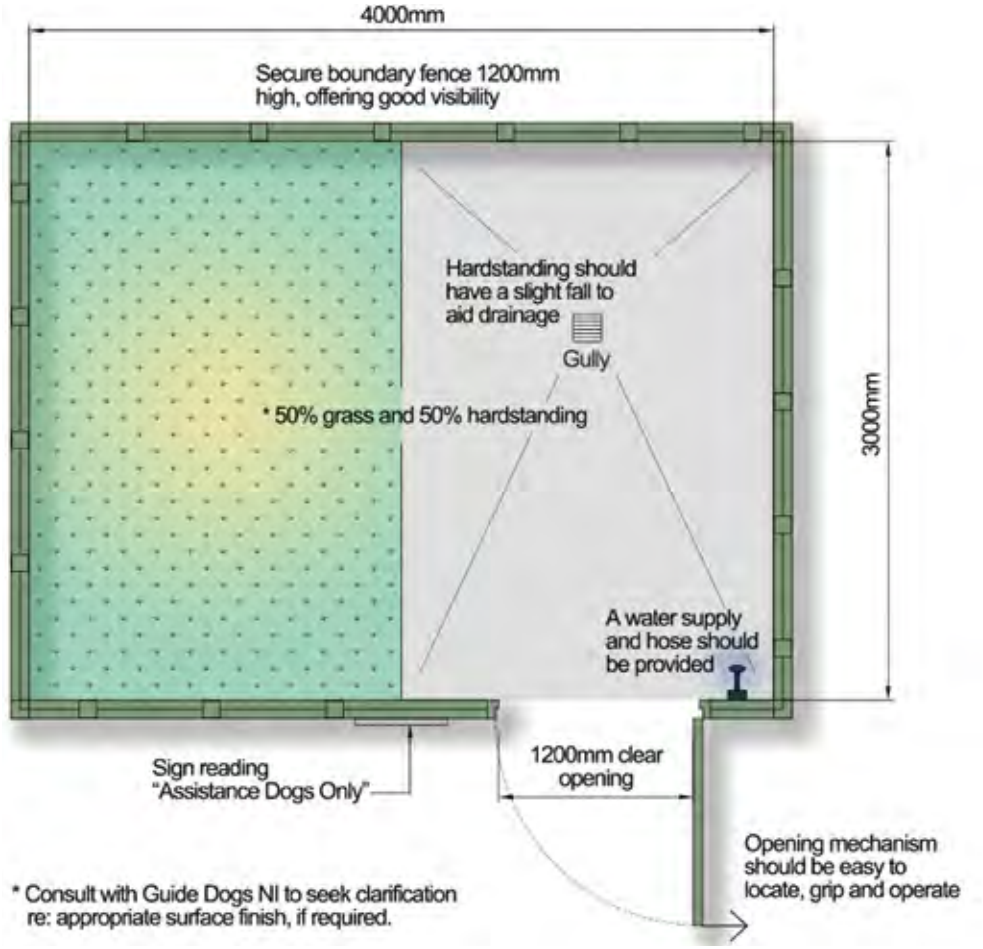


Figure 14 - Assistance Dogs Toileting Facility

13 For assistance dogs' provisions in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Assistance Dogs toileting facilities (Newry Leisure Centre and South Lake Leisure Centre)

Assistance Dogs toileting facility (Dungiven Sports Centre)

Sign to denote Assistance Dogs toileting facility, including Braille

4.14.2 Within sports facilities

Overview

Provision for assistance dogs should be available internally within sports facilities.

Recommended Standards

- Internal provision should be made available to enable an assistance dog owner to be safely accompanied by their assistance dog within sports facility viewing areas, if that is their preference. See also Section 5.1 of this guide: Accessible Viewing Areas in Sports Facilities; Accessible Spectator/ Viewing Facilities.
- Appropriate internal provision, agreed with the assistance dog owner, should also be considered to accommodate a safe and secure rest space for the dog when it is not possible for a participant to take their assistance dog with them (e.g. when swimming).This facility should be within or close

to a staffed area where direct supervision/monitoring can be provided and will be dependent on the type of facility and its management policy. Guide Dogs NI recommends that the assistance dog should be unrestrained within the secure area and have access to a water bowl. If required by the facility, and only in agreement with the assistance dog owner, preference may be to have a benching hook(s) and benching line available within the secure area. If provided, the benching line should be 5ft long and the benching hook fixed 150mm above floor level to enable the assistance dog to lie down comfortably.

Guidance Signpost

- Guidance on dog toileting facilities for guide and assistance dogs. Guide Dogs.

4.15 Quiet Areas and Sensory Rooms

Overview

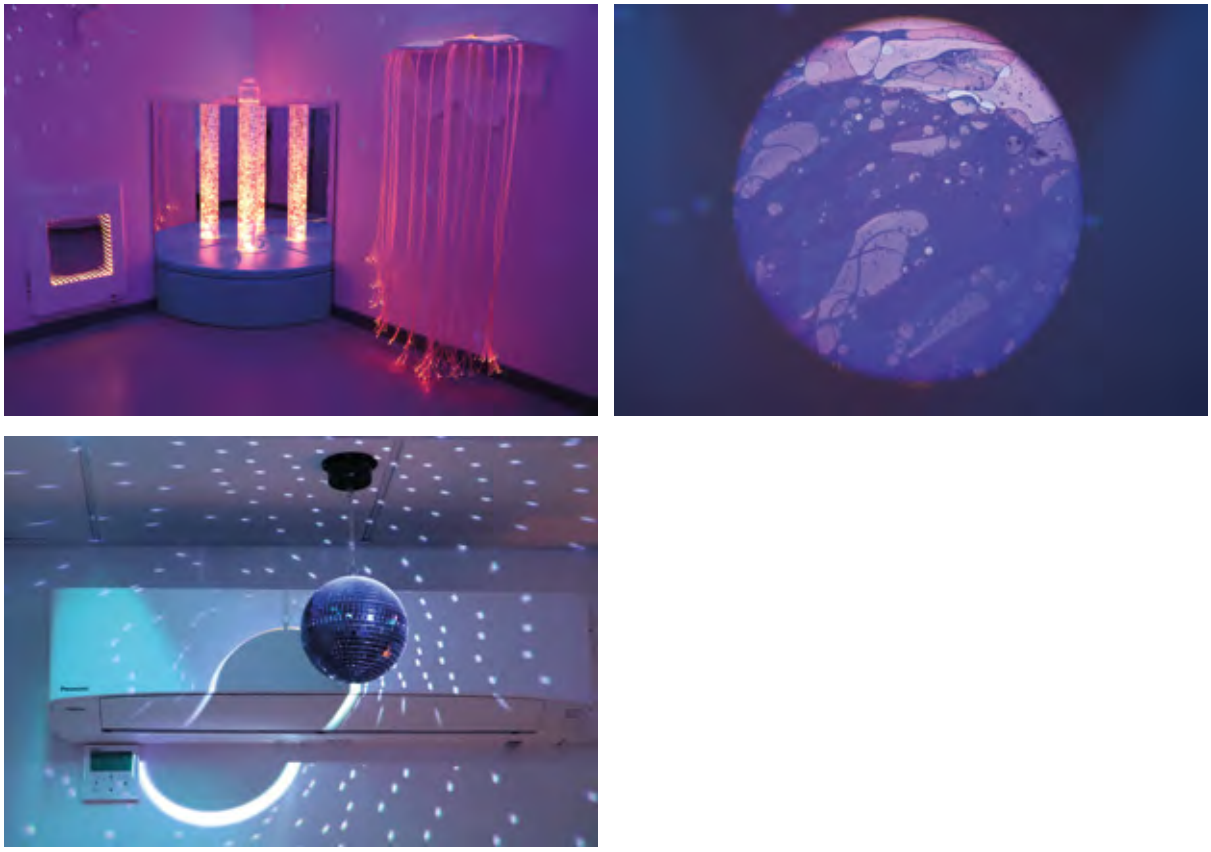
Neurodiversity[14] relates to the diversity of the human brain. It is the term used to describe variation in neurocognitive profiles across the whole population and recognises that the way we think, move, process, act and communicate can vary.

Some people, including people with neurodivergent profiles such as Autism, Dyslexia, Dyspraxia, ADHD and Tourettes, and neurodegenerative profiles such as Dementia, can often experience sensory processing difference from the majority of people (i.e. may react in a different way when information is processed through the senses). Response reaction can be heightened (hypersensitivity) or reduced (hyposensitivity) in certain situations and environments. Inclusive design and design interventions, such as the provision of quiet areas and sensory rooms, can help to reduce negative sensory experience and anxiety.

A quiet area (or restorative space) should be made available for adults and children within sports facilities when required. This could be a room or area dedicated for this purpose, or one identified as suitable for this purpose when required to offer a safe, quiet area, away from noise or large numbers of people.

The inclusion of a separate sensory room should also be considered.

14 Neurodiversity is defined as "all types of ways humans think, move, process and act; therefore collectively includes all groups termed as neurotypical, neurodivergent or neurodegenerative." Taken from PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide.



Sensory Room (South Lake Leisure Centre)

Recommended Standards

- Where possible, a combination of secluded private spaces and shared calming environments should be provided. **Note:** avoid the use of meeting or conference rooms, as they may be occupied when required as a quiet area or restorative space.
- Quiet areas and sensory rooms should be accessible and close to accessible sanitary provisions.
- Quiet areas and sensory rooms should include a range of seating options.
- Quiet areas and sensory rooms that are intended to serve as a quiet or restorative space all or part of the time should have finishes and fittings that do not overstimulate the senses.
- Quiet areas and sensory rooms should be odour-free and have low background noise.
- A sensory room should include sensory equipment/toys. **Note:** some people might have a need for different levels of sensory stimulation within a quiet area, so if it is not possible to provide a separate sensory room, the provision of additional items that are discreetly stored within the quiet area should be considered.

Guidance Signpost

- BS 8300-2:2018. **Paragraph 19.3** Quiet spaces, p.154.
- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 14.1** Quiet and restorative spaces.

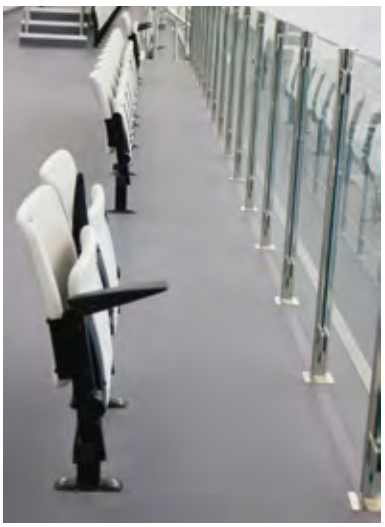
5 Accessible Viewing Areas in Sports Facilities

5.1 Accessible Spectator/Viewing Facilities

Overview

Where provision is made for spectating at a sports facility, disabled people should be considered. Spectators with disabilities should have a choice of accessible vantage points and should have the opportunity to sit with a companion, or within a larger group.

Sports hall spectator seating, including wheelchair and ambulant accessible provisions (South Lake Leisure Centre)



Pool viewing area with ambulant accessible seating provisions and wheelchair user seating spaces (South Lake Leisure Centre)

Large contrasting seat numbers (Foyle Arena, Derry~Londonderry)

Recommended Standards

- The design of bleacher seating and rebound screens should be considered where temporary spectator seating is provided e.g. raised (dais) platform and ramp section integrated into the lower sections of the retractable unit to create elevated wheelchair viewing - which can be fixed to extended bleacher.
- See also Disability Sport NI Guide 3: Accessible Sports Stadia Design Guidelines. Disability Sport NI. **Section 6 Accessible Viewing and Vantage Points**: 6.1 Accessible viewing capacity; Specific recommendations for ambulant accessible seating (including the provisions for persons accompanied by assistance dogs); 6.3 Sightlines; 6.4 Quiet areas.
- See also Disability Sport NI Guide 4: Accessible Sports Stadia Management Guidelines. Disability Sport NI. **Section 2 Accessible Communications and Section 5 Non-standing Policy.**

6 Accessible Communications

6.1 Signs and Wayfinding

Totem welcome sign (South Lake Leisure Centre)

Large facade sign to clearly denote facility name from long distance (South Lake Leisure Centre)

Overview

Accessible external and internal signs are essential to enable disabled people to successfully navigate around sports facilities unassisted. 'There are four basic principles in sign design: signs should be used only when necessary; sign location should be part of the process of planning the building and the environment; messages should be short, simple and easily understood; and signs should be consistent, using prescribed typefaces, colours and contrast.'[15] The use of technology can also be beneficial for wayfinding and should be considered.

Recommended Standards

Language and the Use of Pictograms

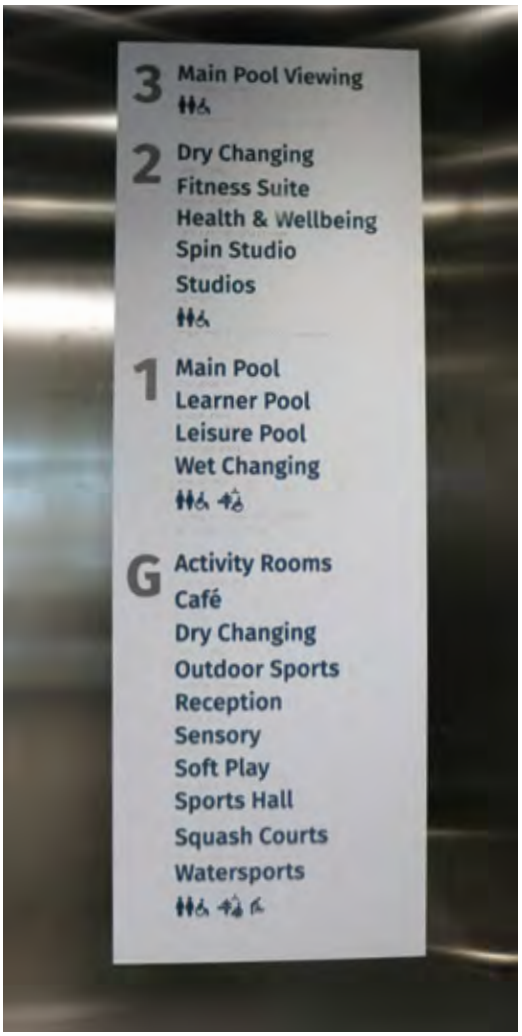
- Use simple wording in 'plain English' where practicable e.g. in areas where they can be readily seen and not impacted by heavy footfall.
- Wherever possible universally recognised symbols/pictograms should be used to complement wording, which will assist people with a range of abilities including people with dementia and people who do not use English. These should be large and contrasting, and embossed when within reach.
- Where text is used as opposed to, or to complement pictograms, toilets should be signed as accessible not disabled i.e. 'Wheelchair Accessible Toilet'; 'Ambulant Accessible Toilet'; 'Wheelchair Accessible Baby Changing'.

15 June Fraser, Sign Design Society. For signs in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Accessible external directional wayfinding sign (South Lake Leisure Centre)

Examples of clear text and symbol signs (South Lake Leisure Centre)

Directory sign (South Lake Leisure Centre)



Directory sign within lift (South Lake Leisure Centre)

Text

- Sentences or single word messages should begin with an upper case letter and continue with lower case.
- Words consisting totally of upper case letters should be avoided. Exceptions to this guideline are traditional, customary or specific words required by legislation and written in capital letters e.g. EXIT.
- A simple sans serif font such as Arial or Helvetica should be used.
- Lettering and numbers should reflect the guidance specified in Table 7 of this guide: Recommended Sign Font Heights.

Viewing Distance	**Type of Sign**	**x-height (lower case letter)**
Long distance	Signs seen when approaching a building (e.g. building entrances)	150mm min.
Medium distance	Directional signs (e.g. identification signs in reception areas or directional signs in corridors) *	50mm to 100mm **Note:** the greater the reading distance the larger the letter required within this range
Short distance	Room signs*	15mm to 25mm

Table 7 - Recommended Sign Font Heights

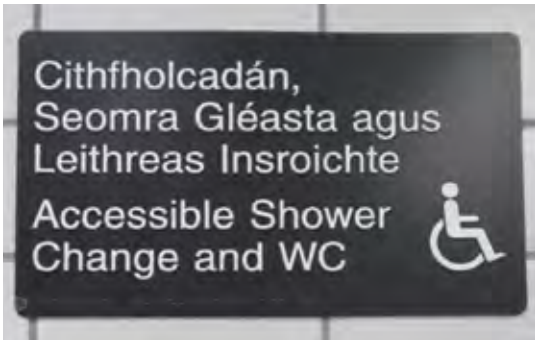
*Embossing required for signs within reach, to enable reading by touch.

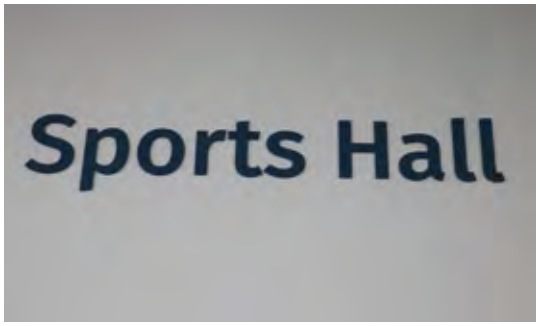
Materials

- Signs should be made from non-reflective matt finished materials.

Colour and Contrast

- Signboards should be of a colour that contrasts with the background on which they are mounted.
- Text or pictograms should contrast with the signboard.
- Designers should use tactile, coloured or tonal wayfinding tools to guide people to and around sports facilities wherever possible.
- Colours used on signs should be chosen to ensure they can be read by all people, including people with colour blindness.





Examples of accessible room identification signs

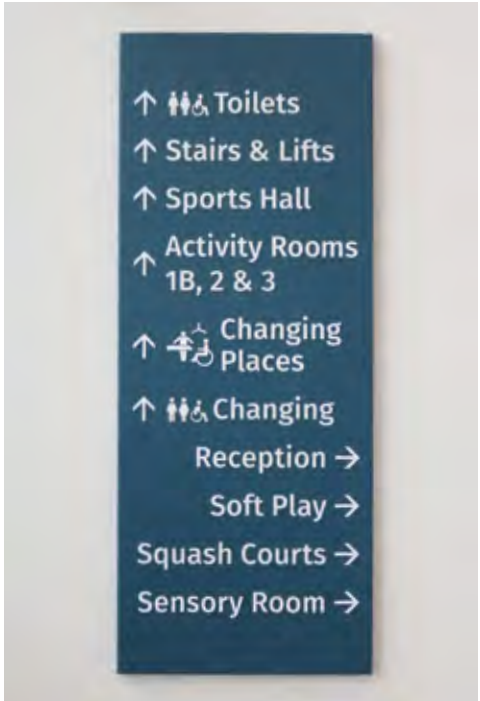
Positioning

- Signs should be provided in prominent positions, located at key decision points e.g. at junctions of circulation routes. Signs and symbols indicating reception counter, lifts, stairs etc. should be clearly displayed in reception areas.
- Room signs positioned adjacent to doors on walls will ensure that signs can be read when a door is in the open position (complementary symbols on toilet doors will assist people with dementia).
- Designers should consider that signs may be less visible and obvious in circulation routes during periods of heavy footfall. Adequate signs, positioning and the use of complementary directional and identification signs is important.
- Signs and symbols indicating lifts, stairs and main circulation routes should be clearly displayed at the reception area.
- In general accommodation areas, signs should be mounted at or just below eye level (in the range 1400mm to 1700mm above floor level). High level signs e.g. directional signs should also be provided along circulation routes and in large busy spaces.
- Repeat directional signs at regular intervals along access routes to provide reassurance.
- No-go areas to the public should be clearly signed as ‘No Entry’.
- Directory signs should be provided within lift cars to denote facilities on each floor level, preferably using embossed lettering and Braille.

Text Ranging and Hierarchy

- For directional signs, where direction is to the left, the arrow should be on the left of the message and where direction is right, the arrow should be on the right of the message; and with message text ranged accordingly, to reduce the reading distance between the message and arrow.
- Generally, do not use centred messages for any signs.
- Use a hierarchy for directional sign listings i.e. left directional messages first, then straight ahead messages, then right directional messages etc.
- Straight ahead arrows should be to the left hand side on a directional sign and the message text left ranging.
- Where multi-lingual messages are required on signs, list like languages together on directional signboards or provide separate signboards, to avoid confusion and to reduce the appearance of clutter on signs.

Examples of clear directional signs with arrows to reflect text ranging, Tollymore National Outdoor Centre - (images courtesy of Taylor Signs)



Wayfinding sign (South Lake Leisure Centre)

Lighting to Signs

- Signs should be well illuminated and care should be taken that there are no bright lights behind that may dazzle the viewer.

Embossed Signs and Braille

- Signs of this type are available, but are not always practical. People who are blind or partially sighted may or may not be accompanied and due to heavy footfall signs of this type may not be locatable and/or accessible.
- Large embossed pictorial signs should be provided on doors, including Braille where appropriate e.g. on all toilet doors. This will assist people who are blind or partially sighted, people with learning disabilities and people who do not use English as their first language.
- The availability of staff assistance is very important.

Note: in areas where embossed signs and Braille may prove more viable and practical e.g. on all toilet doors, in staff areas, commercial activities areas etc., the following recommended standards are applicable:

- When signs are within reach of the user, embossed signs that can be read by touch are useful to many people who are blind or partially sighted.
- The depth of embossing should be a minimum of 1mm and the edges should be rounded.
- Standard pictograms such as those used on toilets should also be embossed.
- Grade 1 Braille should be used for single word or short multiple word signs.
- Grade 2 contracted Braille should be used to reduce the length of signs incorporating a paragraph of text.
- Incorporate Braille locators along the left-hand edge of the signboard. Locators can either be raised or recessed (by 1 to 1.5mm).

Additional Considerations

- In large sports buildings consideration should also be given to the provision of audible signs to assist people who are blind or partially sighted.

Guidance Signpost

- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 6** Wayfinding.
- Sign Design Guide. A guide to inclusive signage. JMU and the Sign Design Society. Parker, P & Fraser.
- BS 8300-2:2018. **Paragraph 12** Signs and information, p.55-60.
- See It Right - Making Information Accessible to People with Sight Problems. RNIB.
- www.colourblindawareness.org

6.2 Alarm Systems

Overview

A fire/evacuation alarm system, which can alert people who are deaf, have a hearing loss or tinnitus of possible danger, should be installed in all sports facilities. Fire alarm systems should be audible and visual, including within areas where visitors and staff may be unaccompanied.[16]

Emergency assistance alarms are essential in areas or facilities where disabled people may be alone e.g. in toilets.

Recommended Standards

- Emergency assistance alarms in sanitary accommodation, changing and shower areas should be wired to a central control point, where this is available. This will ensure that alarms are acknowledged in the event that individual alarm beacons are not seen or heard. See Section 4.9 of this guide: Outlets, Switches and Controls.
- A fire alarm system incorporating flashing beacons should be installed in sports facilities, including areas where people who are deaf, have a hearing loss or tinnitus might find themselves alone and therefore potentially unaware that an emergency alarm has sounded e.g. beacons should be provided in main circulation routes, toilet areas, changing and shower areas, lone offices, areas with high noise levels - ambient noise levels exceeding 90dB (A).
- Flashing beacons should be designed not to stimulate photosensitive epilepsy.

16 For alarm systems in sports pavilions see Sports Pavilions Guidance Notes available from Disability Sport NI.

Use of flashing beacon alert within self-contained unisex wheelchair accessible WC unit

Guidance Signpost

- Access to and use of buildings. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet R. **Paragraphs 6.4 - 6.7 and Paragraph 6.10**, p.50-51.
- BS 8300-2:2018 +A1:2010. **Paragraph 13.7.2** Emergency assistance alarm systems, p.64-65.
- BS 9999:2008. Code of Practice for fire safety in the design, management and use of buildings. **Paragraph 16.2** Fire detection and alarm systems, p.62
- BS 5839-1:2002 +A2:2008. Fire detection and fire alarm systems for buildings. Code of practice for system design, installation, commissioning and maintenance. Section 2, Clause 17 and 18.

6.3 Assistive Listening Systems

Overview

People who have a hearing loss often find it more difficult to hear in sports facilities, usually because of a combination of poor acoustics and the presence of extensive background noise. Problems can be alleviated through the provision of assistive listening systems such as induction loops and infrared systems, which reduce the effect of background noise so that people who have a hearing loss can hear sound more clearly.

Recommended Standards

- The most suitable system will depend on the size and type of the facility, the degree of privacy required and an assessment of potential interference to the system from electrical equipment and wiring. In smaller sports facilities, a portable induction loop system which can be used in a number of different rooms may be suitable.
- An appropriate assistive listening system should be provided:
  - At reception.
  - At sales counters.
  - In key meeting rooms.
  - In rooms or areas used for viewing, with a permanent or temporary public address system.
- The availability of assistive listening systems should be clearly indicated using the standard symbol in each associated room or area where these are installed or available.

Assistive listening system sign displayed at reception
(University of Ulster Sports Centre, Jordanstown)

Guidance Signpost

- BS 8300-2:2018. **Paragraphs 13.1** Audible communication systems, p.60-64.
- Loop and infrared systems for people managing public services. Action on Hearing Loss factsheet.
- Hearing Loops: A Guide for services. Action on Hearing Loss.

6.4 Visual Aids

Overview

To assist people who are deaf, have a hearing loss or tinnitus, it is important that designers incorporate features that offer the presentation of clear, informative visual information on score boards, electronic boards, video boards and to complement audible public announcement systems. The use of large screens will assist people who may have difficulty viewing from a distance. Event commentary can serve as a visual aid for people who are blind or partially sighted.

Recommended Standards

- Where provided, large format LED TV screens that offer close viewing of sporting action should be carefully positioned to ensure visibility is not obstructed.
- Where large screens are provided, subtitles/visual information are required to complement public address systems, to assist people who are deaf, have a hearing loss or tinnitus.
- Where provided, screens and boards should be specified to reduce the likelihood of glare, especially as visual information may be critical to some disabled people in the event of emergency.
- A portable headphone system for use in viewing areas to relay event commentaries to.

7 Getting Out of the Sports Facility

7.1 Exit Routes

Overview

The safe evacuation of all people is an essential element of sports facility design and management. Accessible exit routes and accessible final points of exit will assist disabled people to make their way safely out of a sports facility, including external routes to Fire Assembly Points.

Recommended Standards

- Provide accessible exit routes and final points of exit.
- See also Section 2 of this guide: Entrance; and Disability Sport NI Guide 2: Accessible Sports Facilities Management Guidelines; Emergency Evacuation Strategy.

Refuge clearly signed (The Torrent Complex, Donaghmore)

Egress refuge area sign with embossed lettering and Braille (South Lake Leisure Centre)

7.2 Egress

Overview

The safe evacuation of disabled people (who may have a broad range of need and abilities) is essential to successful sports facility design and management. Egress design will include features such as: fire signs and lighting; refuges ('safe areas'); horizontal and vertical means of escape; circulation routes; final points of exit; Fire Assembly Points etc.

Recommended Standards

- Clear signs are essential for identification and wayfinding in relation to egress and should be designed and considered as part of the overall schedule, both internally and externally.
- Visual and audible communication is required internally and externally to assist disabled people e.g. within refuges and at Fire Assembly Points. Lift telecoms should be linked to a central control point.
- Risk assessment and ongoing review is required in relation to all aspects of fire safety design.

Additional Considerations

- Where possible, to assist ambulant disabled people including older people, escape stairs should meet the standards for general stairs. See Section 3.3.1.4 of this guide: Stairs.
- Where a passenger lift is provided it should be a 'fire protected' lift i.e. evacuation lift (an evacuation lift will have separate electrical power supply).

Refuge on fire escape stair landing (Foyle Arena, Derry~Londonderry)

Refuge area and evacuation chair (South Lake Leisure Centre)

Guidance Signpost

- The Fire Safety Regulations (Northern Ireland) 2010. DHSSPSNI.
- Fire Safety Law: The Evacuation of Disabled People from Buildings. DHSSPSNI. 2011.
- BS 9999:2008. Code of Practice for fire safety in the design, management and use of buildings. Section 9, **Paragraphs 46 - 46.12** Managing occupied buildings; Evacuation of disabled people, p.246-251.
- BS 9999:2008. **Annex D** (normative) Recommendations for theatres, cinemas and similar venues, p.320-332.
- BS 9999:2008. **Annex G** (normative) Recommendations for refuges and evacuation lifts, p.359-370.
- Safe Evacuation for All. National Disability Authority. **Section 5** Equipment, Facilities and Building Design.
- Fire safety. Building Regulations (Northern Ireland) 2012 Guidance: Technical Booklet E.
- www.teachers.emdp.org/docs/Fact_sheet_Sports_Clubs_and_Fire_Safety_Final_x.pdf
- PAS 6463:2022. Design for the mind - Neurodiversity and the built environment - Guide. **Section 14.5** Emergency evacuation.

8 Sports Specific Access Information

8.1 Athletics

Jack Agnew, Wheelchair Racing (Mary Peters Track)

Overview

Athletics opportunities are currently available to a range of disabled people including, but not limited to, people who are partially sighted, people with cerebral palsy (CP), wheelchair users and amputees and les autres.
Track and Field events vary depending on classification and level of competition. Track distances may include 100m, 200m, 400m, 800m, 5000m, 10000m and marathons occur on the roads. Field events include shot put, discus, javelin, club throwing (for athletes with high level of physical disability) long, high and triple jump.

General Requirements

Indoor and outdoor facilities should meet International Association of Athletics Federation (IAAF) specifications.

Specific Disability Requirements

Equipment

Throws provision must provide wheelchair anchoring facilities for seat throwers' frames. Athlete classification will affect the weight of shot put, javelin and discus used in training and competition. The following weights in each discipline are included in Paralympic events and should be available at the facility:

Shot Put	2kg, 3kg, 4kg, 5kg, 6kg and 7.26kg
Discus	0.75kg, 1kg, 1.5kg and 2kg
Javelin	600g and 800g
Club (for athletes with severe physical disabilities)	397g

Table 8 - Field Event Weights

Storage

A lockable storage room should be provided, to secure athletes' track and racing chairs, field equipment, throwing frames and any other equipment.

Classification Area and Rooms

In order to meet the requirements of Paralympic events, the IPC (International Paralympic Committee) Athletics Classification Handbook requests a waiting area for athletes and athlete representatives, reception desk for administrative staff and four classification rooms. Each room should contain a height adjustable examination table, a desk and at least four chairs. Three of the rooms should be of equal size, with a larger room approximately 10m by 20m required to allow for functional testing. The floor surface of the larger room should be suitable for wheeling, running, jumping, stretching, running on the spot and other gross motor activities. Hand washing facilities should be provided for classifiers in between examinations. Indoor throwing equipment is required, including indoor shot, discus, medicine balls, boccia balls and footballs. For a training facility and/or regional events one fully equipped classification room 10m by 20m in size would be adequate.

Guidance Signpost

- www.paralympic.org/athletics
- www.paralympic.org/athletics/rules

8.2 Boccia

Overview

Boccia is a target ball sport similar in principle to bowls but it is played indoors, from a seated position using soft leather balls. It is a sport aimed specifically at athletes with a high level of physical impairment resulting from cerebral palsy or other conditions affecting locomotor function. Athletes who may be eligible for competitive boccia will have an impairment that affects all four limbs with the majority of players using an electric wheelchair for mobility.

Boccia has been a Paralympic sport since 1984. As the sport provides a competitive player pathway for individuals who would otherwise find it difficult or impossible to access any other competitive sporting opportunity, boccia provides a true representation of the Paralympic values.

BISFed (Boccia International Sport Federation) became the governing body of the Sport of Boccia in January 2013. Disability Sport NI is responsible for the delivery of boccia in Northern Ireland and is a member of the UK Boccia Federation (Boccia UK).

Where courts are being marked out for a range of sports, it is recommended that permanent floor markings should include at least one boccia court in Smaller District Council, Private/Community Sports Facilities. However, four boccia courts are recommended in Large Sports Facilities and where competitive boccia sport competition and training will be played.

UK Boccia Championships (Antrim Forum)

General Requirements

Standard sports hall recommendations should be met. See Sections 1-7 of this guide.

Specific Disability Requirements

Surface

A flat, smooth playing surface (e.g. polished concrete, wooden floor or synthetic rubber) is recommended by Boccia International Sports Federation (BisFed Boccia Competition Rules February 2015), however a Taraflex surface is also acceptable.

Court Dimensions

The court dimensions for competitive Boccia are detailed in Figure 15 of this guide: Boccia Court Layout and Markings.

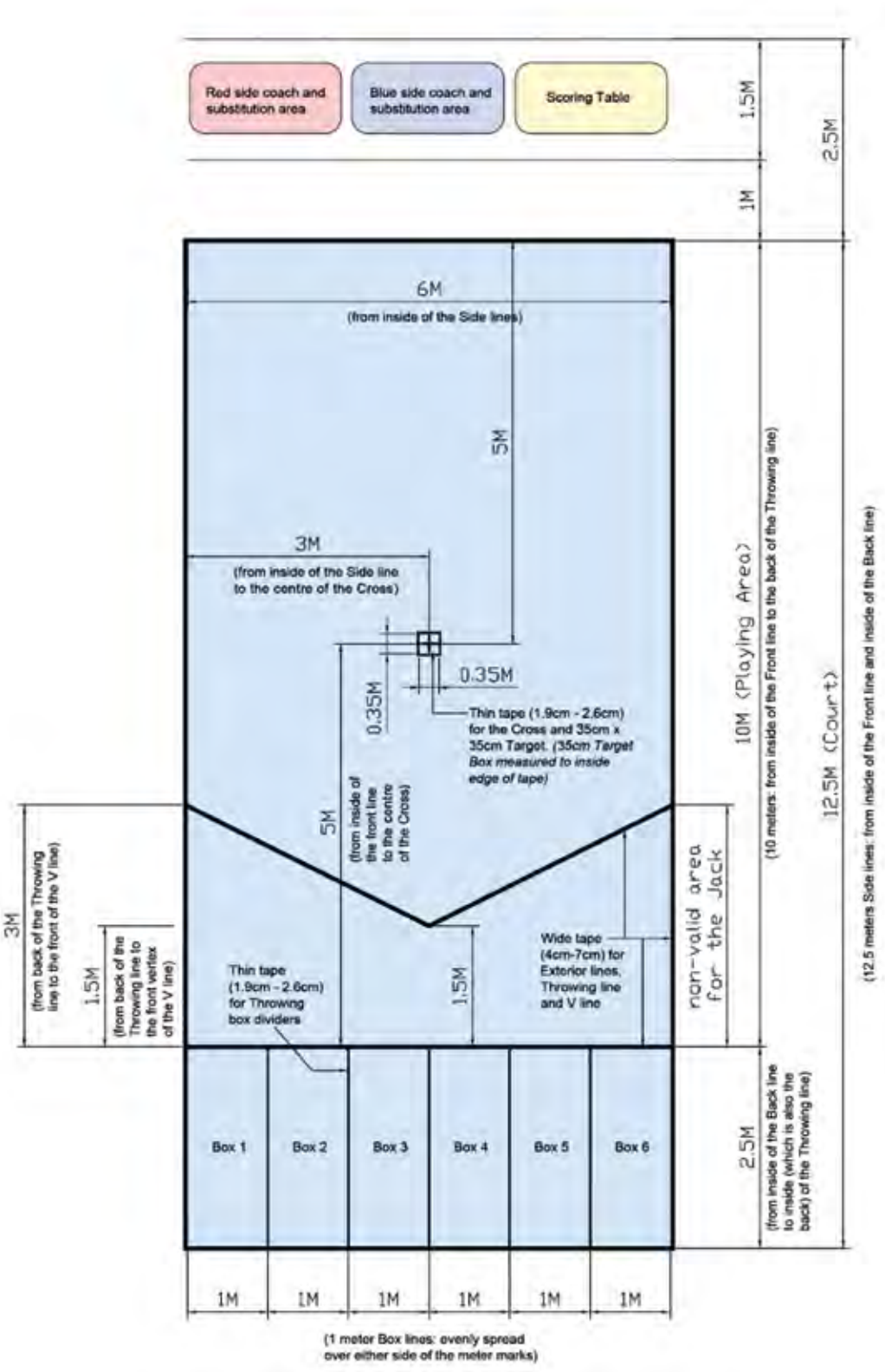


Figure 15 - Boccia Court Layout and Markings

Storage

For National or International competition a secure lockable room must be available to store balls and ramps. For Regional competition there should be a designated storage area for equipment.

Playing Area

For major International competitions a minimum of twelve courts is required. (Four courts should be separated and secluded from the main field of play for warm-up purposes).

Ideally, six courts are required in order for the facility to be suitable for Regional competition. (Two courts should be separated and secluded from the main field of play for warm-up purposes).

There should be adequate space around courts to allow for spectators (including wheelchair access). Space between courts should allow for appropriate court dividers.

All courts should have access to power points to allow for electronic timing systems to operate.

Classification Area and Rooms

For National and International competition, a separate private room with a height adjustable examination table and at least four chairs should be provided for classification, including hand washing facilities nearby for classifiers in between examinations.

Office space should be available for administrative staff to allow for a computerised results system.

Separate rest areas (in addition to changing areas) should be provided for athletes, volunteers and officials during training and competition.

A Call Room with a desk should be provided for registration. The examination of all sports equipment and the coin toss will be conducted in the Call Room.

Lighting

White light is most suitable to avoid reflections and shadows, although standard sports hall lighting is also suitable.

Ventilation

Controllable heating and air-conditioning is essential.

Background Noise

Limited, but not silent, background noise.

Guidance Signpost

- www.bisfed.com

8.3 Cycling

Athletes competing in visually impaired track cycling

Overview

Para-cycling competes in both the road and track disciplines and is open to any athlete with Visual or Physical Impairments who meet the International Cycling Union (UCI) minimum disability criteria. To compete at international level an athlete must receive an international classification assessment from a UCI appointed international classification panel.

Athletes competing in road hand cycling

General Requirements

Facilities should meet International Cycling Union (UCI) cycling regulations and specifications.

Specific Disability Requirements

Storage

Adequate storage should be provided for athletes' equipment, with consideration given to additional room for tandem cycles.

Classification Room

A separate private room with a height adjustable examination table and at least four chairs should be provided for classification, including hand washing facilities nearby for classifiers in between examinations.

Guidance Signpost

- www.paralympic.org/sport/cycling
- www.cyclingireland.ie
- www.uci.org/para-cycling/2rsas6W6RXBgKnN0PFtGFb

8.4 Equestrian

Overview

Athletes with physical disabilities and athletes who are partially sighted compete in freestyle, individual and team dressage events. In 2014 the FEI (International Equestrian Federation) and the IFHA (International Federation of Horseracing Authorities) joined forces to create the IHSC (International Horse Sports Confederation).

An athlete competing in Para Dressage.

General Requirements

Arena should meet FEI specification.

Specific Disability Requirements

Equipment

Scoreboards and notices should be of a size and in a location easily seen by wheelchair users. Conventional scoreboards should be used in addition to any electronic scoreboards.

Mounting blocks and/or ramps should be available during competition and training and within the stable area.

Arena Requirements

An athlete's classification will affect the size of the arena in which they compete.

Grade	Arena size:
Grade I-III	20m by 40m
Grade IV	20m by 60m

A 20m by 60m enclosed arena is used by riders who are partially sighted for training. It should be fenced with post and rails about 1.25m high and furnished with arena letters. Arenas should be sited 15m to 20m apart to avoid confusion from commanders.

Signage

Any markers used should be at least 1m high with black letters at least 0.8m high on a white background, to assist riders who are partially sighted.

Classification Room

A private examination room should be provided including a height adjustable examination bed, a table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least four people.

Guidance Signpost

- www.paralympic.org/sport/equestrian
- www.fei.org

8.5 Goalball

Overview

Goalball is a 3-a-side game played by athletes who are blind or partially sighted on a volleyball sized court. The object of the game is for an athlete to throw the ball along the floor into the opponent's net using a ball with bells inside to orient the players and indicate the direction of the ball. All competitors wear eyeshades/blackout goggles while they are playing on court, allowing athletes with varying degrees of vision to participate together.

Goalball players in action

General Requirements

Standard sports hall recommendations should be met and a typical four badminton court sized sports hall is generally suggested.

Specific Disability Requirements

Space Requirements

Venue dimensions for Goalball are 21m by 30m and a minimum clear head height of 5m. A Goalball court measures 18m by 9m (volleyball court) to the outside edges. The court is divided every 3m along its length to give six areas.

All lines will be 0.05m in width (+/-0.01m) and will be marked with tape. They will have string under them to assist player orientation. The string will be 0.003m (+/-0.0005m thickness) and will be placed under the top layer of tape. A tape colour should be used that provides contrast with the floor and ball, and improves the ability of referees and sighted spectators to better observe the ball and court markings.

Surface

The floor of the court must have a smooth surface and be approved by the IBSA Technical Delegate (for IBSA sanctioned competitions). For Paralympic Games, World Championships and all other Championships, a wooden, plastic or synthetic resilient floor surface will be used.

Equipment

All equipment should meet the criteria established in the Rules of the Game and be certified by the IBSA Technical Delegate.

- Goal posts 1.3m high and 9m long. Posts should be made of sectional steel. The goal posts and crossbar will be round or elliptical and must not exceed 0.15m in diameter.
- The blue natural rubber ball used is a 1250g ball (+/-50gr) with a circumference 75.5cm to 78.5cm, eight sound holes and two noise bells. For major championship tournaments (Paralympic Games, World Championships and Paralympic Games qualification tournaments) an IBSA approved ball determined by the organising committee will be used.
- For the benefit of spectators and coaches, a visual scoring system must be maintained. The scoreboard must be visible at all times from the team bench area.
- Three clocks. The first clock is the official time/game clock and must be visible at all times from the team bench area. The second clock is a backup clock, which is not official unless required by the referee who can then designate it as official. For the Paralympics and World Championships the main clock shall be a basketball type clock with a 10th of a second count down during the last minute. A third clock must be placed in the coin toss area and will be the official clock used for coin tosses.
- Substitute boards.
- Benches for team areas.

Team Area

The Team Area is 6m (+-0.05m) long by 9m (+-0.05m) wide with its back edge being the goal base line. Team Areas are divided into two equal sections. These sections will be called the Orientation Area and the Landing Area. The Orientation Area is closest to the goal and the Landing Area is furthest from the goal.

Team Bench Area

Each team will have a team bench area, which will be positioned on either side of the officials' table, a minimum of 3m from the court's side line. It will be 4m long (+/-0.05m) and 3m (+/-0.05m) deep and will be marked by a tape line with string.

Player Orientation Lines

Two outward position lines are located in the orientation area 1.5m (+/-0.05m) from the orientation area front limitation line. These lines shall be 1.5m (+/-0.05m) in length and run inward from the outside limitation line towards the middle of the orientation area. The lines shall be on each side of the orientation area.

Furthermore, two centre position lines shall be included in the orientation area. These shall be in the middle of the orientation area running inward from the orientation area front limitation line and the goal base line, perpendicular to these lines. They shall be 0.5m (+/-0.05m) in length. Additionally, there shall be two 0.15m lines (+/-0.05m) extending perpendicularly towards the goal line 1.5m (+/-0.05m) in from the side line on the front limitation line of the orientation area.

Landing Area

Immediately adjacent, but lying in front of the orientation area, is the Landing Area. This is an area 9m (+/-0.05m) wide by 3m (+/-0.05m) in depth.

Neutral Area

The Neutral Area is the middle area of the court. It is 6m (+-0.05) long by 9m (+-0.05m) wide and is divided in two by the centre line.

Spectators

Spectators must be restricted to an area no closer than 4m from any part of the court. This area will be clearly tactile marked, or fenced, so that spectators do not encroach on or near the playing area.

Background Noise

The venue should be acoustically suitable for Goalball, with no or very little background noise. Air conditioning or heating for example should be quiet so as not to impact on the games, especially if being used during a tournament.

Guidance Signpost

- www.ibsasport.org/sports/goalball/
- Email: goalball@ibsasport.org
- Goalball Court Layout: www.goalball.sport/about-goalball/rules-and-downloads/

8.6 Gymnastics

Gymnast in action

Specific Disability Requirements

Gymnastics is not currently a Paralympic sport, therefore there are no specific competition requirements for disability. Specifications for overall space sizes and gymnastics equipment at various levels in different disciplines can be found on the British Gymnastics Sports Equipment Data Sheet (guidance signpost provided). Disability access should be considered from the start and incorporated into all projects to ensure the facility is suitable for any future changes in the sport.

A disability gymnastics programme has been in place at British Gymnastics since 1985. Previously known as Gymnastics & Movement for People with Disabilities it now has the name 'Disability Gymnastics'. The programme ensures that gymnastics is adapted to meet the needs of each gymnast.

From fundamental movement activity to elite gymnastics skills, disability gymnastics has something exciting, fun and engaging for all disabled people to enjoy; it is also widely recognised as providing many physical and social benefits for participants, such as developing increased coordination skills and building confidence.

Disability gymnastics is 'pan-disability', meaning that any disabled person can take part if they cannot access mainstream gymnastics. All gymnastics disciplines can be adapted to include disabled people in the sport and competitive opportunities exist within men's artistic, women's artistic, rhythmic, trampoline, teamgym and acrobatic gymnastics. The disability gymnastics pathway provides training and competition opportunities for gymnasts who cannot adequately access mainstream gymnastics, creating a level playing field for all to enjoy gymnastics and achieve.

Guidance Signpost

- www.british-gymnastics.org/documents/clubs-schools-and-leisure-centres/7421-bg-sports-equipment-data-sheets-v4/file
- www.british-gymnastics.org/
- www.gymnastics.sport/site/

8.7 Rowing

Overview

Adaptive rowers compete in four Paralympic boat classes*: Mixed coxed four (PR3 Mix4+), Mixed double sculls (PR2 Mix2x), Men's single sculls (PR1 M1x) and Women's single sculls (PR1 W1x). *Information correct as of Tokyo 2020.

Para Rowing, London 2012 Paralympic Games

General Requirements

World Rowing (previously named FISA) specification areas to be met.

Specific Disability Requirements

Water Access

To provide access to the water, a slip-resistant jetty or pontoon should be provided. Jetties and pontoons should be wide enough to facilitate wheelchair access, transfer and turning. Jetties should be maximum 180mm above the water (alternatively, an accessible slipway to the water is suitable).

Paralympic Boats

Para-Rowing PR3 Mixed Coxed Four

The boat for PR3 Mix4+ events shall be subject to the same restrictions as those for 4+ events under the RA Rules of Racing and related By-Laws (RULE 39).

Para-Rowing PR2 Mix2x

PR2 Mix2x boats must be designed and built to FISA specifications by a FISA approved ParaRowing Boat Manufacturer. The hull, the pontoons where fitted and the seat fixing are part of the standard specifications.

Boats used in the PR2 Mix2x events have a fixed seat and may have stabilising pontoons. The seat itself is not restricted, except that the design of the seat must be compatible with the strapping regulations.

Para-Rowing PR1 1x

The PR1 1x must be designed and built to FISA specifications by a FISA approved Para-Rowing Boat Manufacturer.

Boats used in the 1x events have a fixed seat and must have two stabilising pontoons per rigger. The pontoons should be fixed at a minimum distance of 60cm from the boat centre line.

The seat itself for the PR1 1x is not restricted.

The minimum weights of Para-Rowing boats are:

- PR3 Mix4+ - 51kg.
- PR2 Mix2x - 37kg.
- PR1 1x - 24kg.

The minimum weights for Para Rowing boats shall include pontoons where used.

Transfer and Safety Equipment

Although in most cases wheelchair users will already have an established transfer technique, a hoist that can be mounted on jetties and pontoons should be available to assist transfer into and out of rowing boats. Transfer benches and sliding boards can offer a transfer option for people with good upper body strength who do not require a hoist.

Rowers are encouraged to wear self-inflating or other flotation device for additional safety. These should be stored in a suitable area, which is accessible and within reach of wheelchair users. Rowers shall use mandatory trunk strapping for safety purposes and may use additional adaptive strapping.

Safety Boats

Additional safety boats may be required on the course for all adaptive events, but particularly PR1x events.

Classification Room

A separate private room with a height adjustable examination table and at least four chairs should be provided for classification, including hand washing facilities nearby for classifiers in between examinations.

Guidance Signpost

- www.worldrowing.com/events/rowing-and-para-rowing

8.8 Sailing

Overview

In International competition athletes compete in three sailing disciplines: The 'Single-Person' and 'Three-Person' Keelboats are open to most disability groups, whilst the 'Two-Person' Keelboat event is specifically designed for athletes with a higher level of impairment.

The sailing classification system is based on four factors: stability, hand function, mobility and vision. The Single-Person and Three- Person disciplines are open to any gender, however the Two-Person discipline requires at least one female within the crew.

The sport is governed by the International Association for Disabled Sailing (IFDS), which closely co-operates with the International Sailing Federation (World Governing Body for Sailing).

Sailing on the Craigavon lakes

Specific Disability Requirements

Water Access

- To provide access to the water, a slip-resistant jetty or pontoon should be provided. Ramps and connection bridges leading to access jetties and pontoons should be slip-resistant, maximum 1 in 21 gradient and 2000mm wide. Contrasting handrails and minimum 100mm upstand edges are required for safety and to offer guiding assistance to people who are blind or partially sighted on ramps and connection bridges.

- Jetties and pontoons should be wide enough to facilitate wheelchair access, transfer and turning. Jetties should be maximum 180mm above the water (alternatively, an accessible slipway to the water is suitable).

- The junctions between sections of walkway on jetties and pontoons should be flush, with joints/gaps between sections or boards maximum 5mm (10mm absolute maximum). Where used, boards should be laid perpendicular to the line of travel.

- Minimum 100mm high by 50mm edge upstands for protection generally, which contrast visually with the remainder of the jetty or pontoon surface and the water, will assist sailors who are partially sighted and will prevent wheels from veering off the edge.

- Avoid wide, unstable bumpers, such as rubber tyres, as they increase the space between the boat and the jetty and make transfers more difficult.

- If launching directly from the shore, the shoreline section should be firm and smooth. **Note:** heavy duty matting can provide support on softer or muddy ground surfaces.

Equipment

The boats utilised for the three events are:

- Single-Person Keelboat - 2.4mR.
- Two-Person Keelboat - SKUD-18 (formerly known as the UD-18).
- Three-Person Keelboat - 23ft Sona.

Adaptations

At present, boats widely used are the Paralympic Three-Person Keelboat, the Sonar; the Paralympic Single-Person Keelboat, the 2.4mR, Martin 16, Ideal 18, Access Dinghy, Rhodes 19, Hobie Trapseat and the Freedom. Included are seats, transfer benches, hiking and steering assists; also used on some boats such as the Martin 16 is joystick steering plus electronics for sip and puff.

- Seats allow the sailors to position themselves so they can control the tiller and sheet without fear of falling. These can be as simple as a lawn chair modified to fit a cockpit or as complex as a translating seat, which allows a sailor to switch sides. Seats include the lawn chair, wheelchair bases, go-kart seats and other easily adapted seats.
- The transfer bench allows sailors to switch sides when tacking or jibing and can be anything from a sturdy cooler in the middle of the cockpit, a custom cockpit filler to platforms that fill in the cockpit area.
- Steering devices take many forms, including a collapsing metal tiller, which allows free movement from one side of the boat to another or wheel steering. One steering system uses levers on both sides of the boat. Handholds and bars provide stability for the sailor in the sailing position, or in a move from one side to the other. Sheet fine tune and other systems provide assistance to sailors with weakness or poor muscle function; these comply with relevant class and IFDS rules.
- Boat hook - to aid disembarking in adverse wind conditions.

Safety

- Any modifications that deviate from the original design specification may alter the stability characteristics of that vessel and so it is important to check any modifications with the original manufacturer.
- Adaptations should consider the need for the crew to have access to the full range of tiller movement and sail controls.

- Servos and switch operated controls for steering and sail trimming should have an override in place that is easy to access and quick to use, and that releases the steering and/or sails quickly. Those responsible for safety should be familiar with its operation. These are complex systems so supervision is needed by someone who can solve problems as they arise on the water.
- As with other adaptations, modifications as a result of servos/switches should be checked with the original manufacturer, unless using manufacturer supplied equipment. The systems should be designed to operate safely in a dynamic, wet environment.
- If servos and switch operated controls are to be used, a careful risk assessment should be in place, with consideration given to:
  - The stability characteristics of the vessel used.
  - The level of safety cover needed.
  - Reducing sail area and mast head flotation.
  - The area of operation.
  - The thresholds for stopping activity (see manufacturers recommendations).

Seating and Posture

Seating and posture are important for both personal safety and the ability to take an active part in sailing. The aim is to build a secure posture from the base up thereby ensuring comfort and enabling movement and generation of force to control steering/sails and self. Use the guided conversation to inform your decisions and take advice if needed. Consider:

- The person's experience and competence.
- Skin care (pressure, friction, moisture).
- Stability of airways, joints, and bones.
- Any pain and how it is managed.

If in doubt stop the activity, review and change posture early and check that you have got posture right for the person.

Cushions are vital pieces of equipment for sailors with disabilities. They are essential for skin protection for those with no sensation due to paralysis, important for the comfort of someone with limited movement sitting for long periods and useful for someone with lack of trunk stability, or in need of support to maintain a particular position e.g. to reach winches or sheets.

- The Jay Protector (JP) is a small pad filled with a patented gel. The pad fits inside a sling which is strapped to the body to protect the sailor's buttocks. The JP provides protection in the wheelchair during transfer on the jetty and in the boat. It is designed to be worn outside protective clothing and will protect waterproofs. Some sailors wear a JP underneath their waterproofs to make sure it is not displaced during manoeuvres.
- A Roho is an inflatable rubber cushion (therefore unaffected by water) with the appearance of an egg box. It provides excellent protection and comfort in the boat. Care must be taken to avoid punctures. It is available in regular and 'active' profiles.
- It is useful to have spare cushions available during transfers to use as 'stepping stones' for sailors who need constant protection. Ordinary foam wheelchair cushions can be used, but they tend to soak up water. Alternatives include layers of closed cell foam glued together. Holes drilled through this 'sandwich' prevent water settling on the surface and provide a means of tying the cushion securely to the seat of the boat.

Transfer

The ability to transfer safely into and out of boats is an essential element in providing access for disabled people. Standard methods include steps, floating low-profile or flush dock systems, a hinged ramp with handrails, however, hoists, mechanical or water-powered lifting platforms and easy launch options also offer alternative means of assisting disabled people to transfer to and from boats from a jetty or pontoon.

If disabled people sail regularly from a fixed venue it may be worth considering permanent transfer aids. Such aids vary from simple to complex. Lifting puts helpers at risk of injury, but if mechanical lifting devices are not simple, at hand and practical they will not be used.

- A hoist is useful if mounted on the outside corner of a dock where it can be used front and side.
- A transfer bench has a hinged board attached, which when open provides slide transfer from the bench to the boat. A sliding board allows direct transfer from a wheelchair to a boat.
- A canvas Bosun's Chair can be used for transfer. It is sometimes simpler to keep the sling around the body while sailing so that it is ready for disembarkation.
- A webbing loop (2m of 500mm webbing joined end to end) can be passed under the armpits and behind the knees.
- A block & tackle can be rigged on the boom or main halyard and used in conjunction with the above 'suspending' devices.
- Cranes for launching boats can be used for transferring people.
- A gantry is useful ashore in preparation for a beach launch.

Guidance Signpost

- www.sailing.org/our-sport/para/

8.9 Swimming

Overview

Swimming is an important activity for many disabled people. International competition is open to athletes with physical disabilities, athletes with a learning disability and athletes who are blind or partially sighted. Athletes compete in all four strokes. World Para Swimming is the international federation for the sport of para swimming.

Bethany Firth competing at the Paralympic Games (Classification S14 Athlete)

General Requirements

Fédération Internationale de Natation (FINA) facility regulations should be adhered to.

Specific Disability Requirements

All pools and associated pool facilities must be accessible, as specified in Section 4.5 of this guide: Specific Provisions for Pool and Associated Pool Facilities.

Equipment

During competition, submersible platforms (or hoists) should be available for use at each end of the pool, to enable easy access to the water if required.

Wetside chairs, mats and storage provision should be provided. The mats should be a minimum of 1m wide and 2m long and shall be placed on the deck beside the outside lanes of the pool, within 1m of each end.

A strobe/starting light for athletes who are deaf or have hearing loss should be available at the starting platform of the athlete. The light is required to be able to be transferred next to the starting platform of the swimmer and positioned to the swimmer's requirement.

Ventilation

It is essential that the air-conditioning system does not re-circulate air, as this contaminates the pool hall air.

Classification Area

A private examination room should be provided including a height adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least four people.

Guidance Signpost

- www.paralympic.org/swimming
- www.paralympic.org/swimming/rules

8.10 Table Tennis

Stephanie Grebe of Germany competing at the 2018 Para World Championships

YAN Shuo of China competing in the 2018 Para World Championships. Photo by Grega Valanci (Sportida). Courtesy of ITTF

Overview

Table Tennis competitions take three forms at the Paralympic Games:

- Athletes playing in Wheelchair (classes 1-5).
- Athletes playing Standing (classes 6-10).
- Athletes with Intellectual Impairment (class 11).

General Requirements

International Table Tennis Federation (ITTF) facility regulations should be adhered to.

Specific Disability Requirements

Equipment

- The height of one or maximum two cushions is limited to 14cm in playing conditions with no other addition to the wheelchair.
- Racket/bat can be taped to the hand of player, if required.
- Tables shall allow access to wheelchairs without obstructing the player's legs and shall allow access to two wheelchairs for doubles.
- Table legs shall be at least 40cm from the end line of the table for wheelchair players.

Surface

Top level events are played on official rubber surface but a concrete or wooden floor is, in principle, acceptable for many events.

Space Requirements

For wheelchair play the playing space may be reduced but shall be not less than 8m long and 6m wide.

Guidance Signpost

- www.ittf.com/para-table-tennis/
- www.ipttc.org/

8.11 Wheelchair Basketball

James MacSorley, Wheelchair Basketball Double World Champion. Photo Credit British Wheelchair Basketball and SA Images

Overview

Wheelchair Basketball is played by athletes with lower limb disabilities and also by those with 'permanent' sports injuries which prevent them from playing the running game of Basketball.

It is one of the highest profile sports at the Paralympics: 12 Men's teams and 8 Women's teams qualify through regional qualification events. Players are classified according to their physical disability through a scale from 1.0 - 4.5 pts (1.0 Point Players having the highest level of disability and 4.5 Point Players, the least). A team on court comprises five players and the total 'team' points value cannot exceed 14 pts.

Northern Ireland Under-15s at National Junior Championships 2015, Worcester

General Requirements

International Wheelchair Basketball Federation facility regulations should be adhered to.

Specific Disability Requirements

Equipment

A lockable storage room should be provided for secure storage of wheelchairs and other associated equipment. This room needs to be large enough to hold thirty 'stored' wheelchairs and should be accessible to wheelchair users.

The scoring table shall be provided with a device (directional arrow) to display the direction of play for the next possession under the alternating possession procedure.

Surface

Wheelchair Basketball is played on a regulation-sized basketball court. If the court is 'raised', as per many show courts, it is essential that there is suitable access for basketball/rugby sports wheelchairs. It is preferable that wheelchair basketball is played on a hardwood sprung floor. See Section 4.12 of this guide: Floor Finishes, Run-off and Court Markings.

Nets

Senior players play into 10ft baskets and junior players play into 8ft baskets. Ceiling-mounted, height adjustable nets are therefore recommended.

Classification Area

A private examination room should be provided including a height adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least four people.

Changing Rooms

In large venues designed for major competitions a four team changing room should be provided, each with two fully equipped unisex wheelchair accessible toilets.

Guidance Signpost

- www.iwbf.org

8.12 Wheelchair Rugby

Overview

Wheelchair Rugby is a team sport for male and female quadriplegics. It is a unique sport created by athletes with disabilities that combines some elements of Basketball, Rugby and Ice Hockey. The sport is played with a volleyball on a standard basketball court with goals and key areas marked out at both ends. Teams of four players compete, with the aim being to score goals by crossing the opposing team's goal line while in possession of the ball. The ball may be passed, thrown, batted, rolled, dribbled or carried in any direction, subject to the restrictions laid down in the rules. Two wheels must cross the goal line for a goal to count and the player must have firm control of the ball when he or she crosses the line.

Ulster Barbarians Wheelchair Rugby players in action

General Requirements

International Wheelchair Rugby Federation facility regulations should be adhered to.

Specific Disability Requirements

Equipment

The game is played with a white ball identical in size and shape to regulation volleyball. In addition to the ball, four cones, pylons or other similar markers are required to mark the ends of the goal lines.

The scoring table should be provided with a device (directional arrow) to display the direction of play for the next possession under the alternating possession procedure.

Surface

Wheelchair Rugby is played indoors on a regulation-sized basketball court. Hardwood is the preferred playing surface, although other surfaces are acceptable. The playing surface must be accessible to wheelchair users. Any facility which can be used for Wheelchair Basketball is also suitable for Wheelchair Rugby.

Space Requirements

Wheelchair Rugby is played on a regulation hardwood basketball court measuring 28m by 15m, with at least a 5m run-off area behind each goal. The court is marked with boundary lines, a centre line, a centre circle and two key areas.

The centre line divides the court into a front court and back court area. A team's back court includes their goal line and key area. Teams score in their front court, which includes the opponent's goal line and key area. The centre line is considered to be part of the back court.

The key areas are located on the two end lines. They are 8m wide and 1.75m deep. The part of the end line that is in the key area is called the 'goal line'. The ends of the goal line are marked by two cones.

Classification Area

A private examination room should be provided, including a height adjustable examination bed, table and chairs, drinking water and washing facilities nearby. Area should be large enough to accommodate at least four people.

Guidance Signpost

- www.iwrf.com

8.13 Wheelchair Tennis

Ivor Jess competing in the final of the Belfast Open at the Belfast Indoor Tennis and Ozone Complex

Overview

Wheelchair Tennis is played in Singles and Doubles format at the Paralympics in Male, Female and Quad sections. It is also played in all four Grand Slams - the Australian Open; Roland Garros; Wimbledon and the US Open; and has a global tour of 160 tournaments in 40 countries.

Wheelchair Tennis is a sport where wheelchair users and non-disabled players can play and compete together, with the non-disabled person permitted one bounce and the wheelchair player allowed two bounces.

General Requirements

International Tennis Federation (ITF) facility regulations should be adhered to.

Specific Disability Requirements

Surface

Athletes should have non-marking tyres on their tennis wheelchairs. Wheelchair Tennis can be played on all surfaces: hard, clay and grass.

Equipment

Consideration should be given to the appropriate positioning, in terms of height and location, of any equipment or apparatus within or associated with the facility in terms of wheelchair users.

Space Requirements

Wheelchair Tennis is played on a regulation-sized tennis court. Access to the court area should be via a level surface with no steps at the main entrance to the court area. Tennis wheelchairs are amongst the widest chairs used and can be in the region of 1200mm wide. The specification for buildings accommodating wheelchair tennis players should be increased accordingly. The width of chairs should also be considered when determining appropriate clearance distance between the player area, umpire area and court change-over point. **Note:** Recommended Standards provided in Section 2.2: Lobbies; Section 2.3: Visitor Reception; Section 3.1: Corridors and Passageways; Section 3.2: Internal Doors; and Section 3.3.1: Passenger Lifts are based on maximum sports chair widths of 1000mm, however where sports facilities will accommodate wheelchair tennis activities, design specifications appropriate to tennis wheelchairs are required i.e. minimum 1200mm.

Floodlighting columns should not restrict the minimum width required.

Event Venue:

Facilities on Site

Accessible toilets, changing rooms and shower facilities should be available, as well as locker rooms reserved only for players.

Sun Protection

There must be adequate provision of shade.

Wheelchair Storage

There must be a secure place for players to store their tennis wheelchairs overnight.

Repair Station

A repair station is required on site and an air compressor available at all times.

Scoreboards

Scoreboards should be provided on all show courts. At Grand Slams, Super Series and Singles Masters and Doubles Masters the scoreboards should display players' names.

Catering

There must be facilities accessible to players to purchase food (e.g. café or restaurant).

Player Lounge

There must be a player lounge available on-site.

ITF Tournament Representatives Office/Desk

If an ITF Tournament Representative is attending the tournament an office/desk should be arranged (with Internet access).

Practice Courts

A minimum of one practice court per 60 players shall be available free of charge to players from at least one day before the start of the event until the completion of the event. Practice courts must be of the same surface as the match courts. It is preferable that the practice courts are on site. If the practice courts are at a different venue to the match courts, free transportation must be provided.

Court Preparation and Court Layout

All courts must be well prepared prior to the match (clay-courts must be prepared, water on court, bins emptied etc.).

Floodlights

If matches are to be played under artificial lighting, the intensity of illumination must be sufficient for professional tennis i.e. minimum of 500 lux, and distributed evenly over the court.

Guidance Signpost

- www.itftennis.com/wheelchair
- www.itftennis.com/en/about-us/governance/rules-and-regulations/?tour=wheelchair-tennis&type=tour-regulations

8.14 Badminton

Christopher Stewart, Para Badminton Athlete

Overview

Badminton is a Paralympic sport, included for the first time at the Tokyo 2020 Paralympic Games.

The Badminton World Federation (BWF) is a member of the International Paralympic Committee (IPC). The IPC recognises the BWF as the world governing body for Para badminton.

As in badminton, Para badminton athletes compete in men's and women's singles, men's and women's doubles and mixed doubles. Athletes are classified into six "Sport Classes" to ensure fairness in competition.

The game is played on a badminton half court for singles, and full court for doubles. The main difference is that in all levels of the game the front service line to the net is always 'out'.

General Requirements

These are set out within the BWF Statutes, Section 5.5.2 Specifications for International Standard Para Badminton Facilities.

Specific Disability Requirements

Surface

It is desirable to have a wooden floor for Wheelchair events, with approved non-slip court mats for Standing and Short Stature events.

Equipment

From a safety point of view, it is essential that players have sports wheelchairs with rear and front stabilisers in order to prevent chairs from tipping backwards. No other adapted badminton equipment is required.

Space Requirements

The minimum height from the floor over the full court for the Para Badminton World Championships, Para Badminton Continental Championships shall be 9m (30ft). The desirable height for all other BWF sanctioned events (including Continental Championships & Para Badminton International) is 9m (30ft), but the minimum height is 7m (23ft). The required height shall be entirely free of girders and other obstructions over the area of the court.

It is recommended that there shall be at least 1m (3.3ft) clear space surrounding all the outer lines of the court, this space also being a minimum requirement between any two courts marked out side by side.

Event Venue:

Background and Lighting

To avoid any difficulty in sighting the shuttle, no part of the background behind the ends of the court should be coloured white. It is desirable that only darker colours are used. The minimum recommended lighting level is 1000 lux to provide even light over the court area. (**Note:** TV will advise on their lighting requirements and the optimal conditions for still photographers are 1800-2000 lux). Lighting should not be directly over or behind the playing area but be positioned along the sides of the court. All sources of daylight or sunlight behind or along the sides of the court should be eliminated.

Air Movement

Any air movement e.g. draughts from air conditioning must be tightly controlled or eliminated.

Umpire's chair

The construction must be stable and safe for the umpire to ascend and descend. It should be equipped with a hinged writing platform so that the umpire can rest the scoresheet. The seat should be at the same height as the net i.e. 1.55m (5ft) and should be comfortable in terms of size and material used for construction. The chair should be centred along the extension of the net approximately 1m from the net.

Guidance Signpost

- https://corporate.bwfbadminton.com/para-badminton/
- https://corporate.bwfbadminton.com/statutes/#1513733528967-47d667b6-0737

8.15 Golf

Jan Dinsdale, Blind Golf Champion

Overview

Golf is a sport where disabled and non-disabled men and women can play and compete together. It is open to people with a range of disabilities including; blind and partially sighted golfers, deaf and golfers with hearing loss, amputee golfers, golfers with a learning disability and golfers with physical disabilities.

Disability Golf is currently not part of the Paralympic Games. However, there are many opportunities for golfers with a disability to compete regionally, nationally and internationally. The International Blind Golf Association organises a Blind Golf World Championships every two years. The European Disabled Golf Association (EDGA) and the International Golf Federation run various tournaments for golfers with a disability every year. A number of the EDGA events also count towards world ranking points.

General Requirements

The modified rules of golf were developed by the Royal & Ancient (R&A) and the United States Golf Association (USGA) and have been adopted by the EDGA who oversee official competitions. The modified rules only apply if they are adopted by the committee in charge of a competition at the club and do not automatically apply to every competition involving disabled players.

Specific Disability Requirements

Golf buggies may be made available to golfers who have mobility issues.

Some golfers may use their own adapted golf buggies or ParaGolfer to assist them with playing golf.

Modified equipment or an artificial device such as a brace or gripping rod are allowed as long as the Competition Committee are satisfied that it does not give the player an unfair advantage.

An accessible route that can be accessed by a buggy, free of barriers and dangers, should be in place from the club house to the first tee and around the rest of the course for all golfers with a disability. See Section 1.1 of this guide: External Routes and Pathways.

Guidance Signpost

- www.randa.org/rog/players-with-disabilities
- www.edgagolf.com/online/www/
- www.igfgolf.org/golf-for-the-disabled

Blind golf participant and guide

8.16 Judo

Athletes competing in Para Judo

Judo is a very popular sport for athletes with a visual impairment. It has featured in all five editions of the International Blind Sports Federation (IBSA) World Championships and Games and has been a Paralympic sport since the Seoul 1988 games.

Judo at the Paralympic Games is for visually impaired athletes. Each weight category is 'open' with players from B1, B2 and B3 classes competing against each other in the same grouping.

If an athlete has a red circle on their kit, it indicates that the athlete has a B1 level of visual impairment. If an athlete has a yellow circle on their kit, it indicates that the athlete is deaf, as well as having a visual impairment.

Women's judo was added to the Paralympic Games programme for the first time in 2004 at the Athens games.

Space Requirements

The dimensions of the competition area will be the maximum as described by the International Judo Federation (IJF). The dimensions are 10m by 10m with a 3m safety area beyond the contest area. The safety area must be 4m when two competition areas are adjoining.

Specific Disability Requirements

For Para judo, the safety area and the competition area should be in strong contrasting colours.

Guidance Signpost

- www.ibsajudo.sport/wp-content/uploads/2022/08/Ibsa-rules-updated-august-2022.pdf

8.17 Powerchair Football

NI Powerchair Football Player practicing at Girdwood Community Hub

Overview

Powerchair Football is a team sport played in a power wheelchair that respects the same rules as football. The game is played by two teams of athletes (three field players and a goalkeeper) with physical disabilities using adapted powered wheelchairs to strike a specially designed ball of 13in.

The Field of Play:

Dimensions

The basic size of the field that the game will be played on is 28m x 15m (94ft x 50ft) (standard size basketball court):

Length: maximum 30m (98-1/2ft) minimum 25m (82ft)
Width: maximum 18m (59ft) minimum 14m (46ft)

Surface

The surface of the field must be hard, smooth, and level for easy manoeuvrability of the powerchairs. The use of wood or artificial material is recommended. Concrete or tarmac should be avoided.

Markings

The field is marked with lines which belong to the areas of which they are the boundaries. The two longer boundary lines are called touch lines. The two shorter lines are called goal lines.

All lines are a minimum of 5cm (2in) wide. The field is divided into two halves by a halfway line.

The centre mark is indicated at the midpoint of the halfway line. The mark may consist of a 15cm (6in) "X" taped securely onto the floor with contrasting/non-damaging tape.

Goal Area

A goal area is marked at the centre of each end of the field, 8m (26ft) wide and 5m (16.5ft) deep.

Note: maximum length and width would look to be used for sanctioned international events.

Penalty Mark

A penalty mark is placed 3.5m (11.5ft) from the goal line and equidistant from each goalpost to indicate the location of the ball during the taking of penalty kicks. The mark may consist of a 15cm (6in) "X" or line taped securely onto the floor with contrasting/non-damaging tape.

Goals

Goals must be placed on the centre of each goal line. They consist of two upright posts (pylons or cones) placed equidistant from the corners of the field and securely fastened to the floor with non-damaging tape. The distance between the posts is 6m (19ft 6.8in).

Goal Post Position

A mark of 1m from inside each goalpost must be placed for corner positioning.

Officials' Area

An area at least 1m (39.4in) wide is placed around the entire perimeter of the field which allows the manoeuvre of the officials.

The Corner Arc

A triangle 1m (39.4in) from each corner is drawn inside the field of play.

Technical Areas

The technical area lateral limit is from the goal line to the halfway line or 1m (39.4in) from the scorer's table and extends forward to the edge of the officials' area.

Storage

Stores should be large enough to accommodate powerchairs and include a minimum turning circle 3000mm.

Guidance Signpost

- www.fipfa.org/
- www.fipfa.org/wp-content/uploads/2021/11/FIPFA-Technical-Supplement-2020.pdf

Appendices

Appendix A Guidance Signpost Bibliography

Appendix A

Guidance Signpost Bibliography

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Notes

Notes

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