



Guide to indoor areas for small sided football and disability football

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Introduction

Over 4 million people play indoor small-sided football each year in England of which 1.2 million play on a regular league or cup basis. This level of participation makes small sided football one of the largest sports in the country. Small sided football is generally used to describe any game played by less than eleven players. However, there are a number of formats that have gained greater recognition and formality than others and this guide concentrates on identifying the facility requirements for five, six and seven-a-side football.

Details on the FA's Small Sided Football Development Programme, including the relevant 'Laws of the Game' may be obtained from the FA's web site at www.thefa.com.

Various forms of disability football are now played across the world and as a consequence some, but not all, of the disabilities have been recognized and supported by UEFA and FIFA. England now has teams across the following



disabilities: Amputee, Deaf, Blind, Visually Impaired, Learning Disabilities and Cerebral Palsy football. County and regional structures are being put in place with facilities ranging from school sports halls, leisure centres or specialist disability centres. International matches are held at key sports facilities across the country. Further information on The FA's disability football programme can be found at www.thefa.com.

This guide has been prepared to aid facility designers and operators providing indoor facilities for the various forms of small sided and disability football. It details the sizes of pitches, the types of surfaces that are commonly used and the facility infra-structure required to ensure the pitch provides a satisfactory playing environment.

There are many ways of designing, constructing and surfacing indoor facilities for small sided football and disability football. These guidelines do not constitute any form of preference or approval from The FA but are intended to provide information to potential consumers to allow them to make informed choices when designing facilities.

Dimensions and layouts

Small sided football and disability football pitches may be enclosed by rebound boards (barriers), or walls or the game can be played to goal lines and touchlines.

The layout of the pitch for small sided football is shown in Figure 1. It should be rectangular and the length of the touchline should be greater than the length of the goal line.

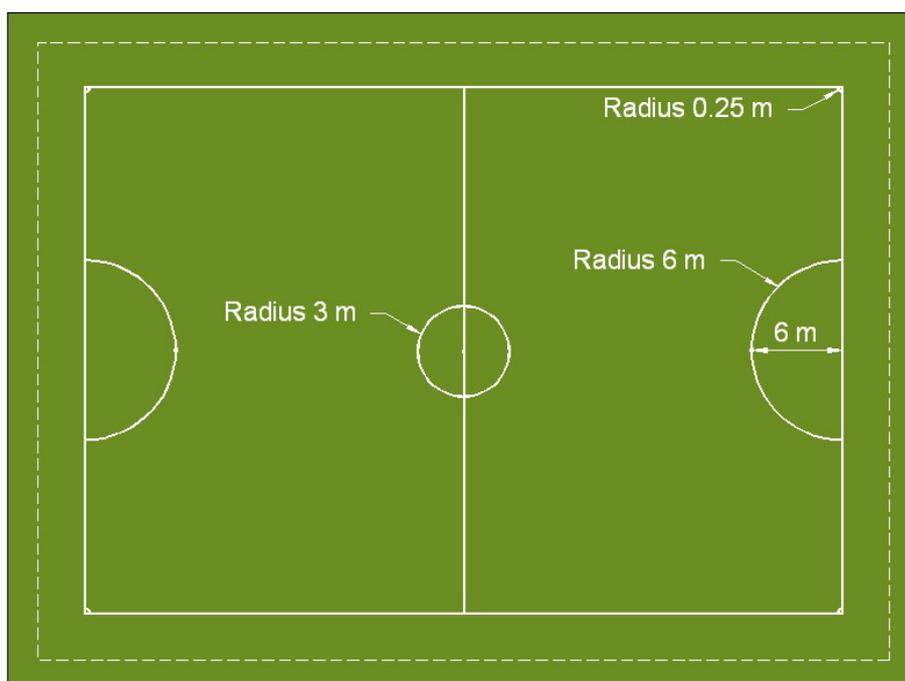


Figure 1 Markings for small sided football (dotted line shows boundary of run-off where pitch is not enclosed)

Where-ever possible the ratio of length to width should be 2:1. The recommended pitch dimensions are shown in Table 1 along with the minimum and recommended sizes for run-offs; where-ever possible recommended run-offs should be used.

Table 1 - Dimensions of indoor small sided football pitches				
	Length		Width	
Min.	25.0m		16.5m	
Max.	50.0m		35.0m	
Run-off when applicable	Minimum	2.0m	Minimum	2.0m
	Recommended	3.0m	Recommended	3.0m

The pitch is marked with lines that should be 8cm wide. Lines should preferably be coloured white, yellow or red (in multi-use sports halls).



The two long boundaries are called touchlines; the two shorter lines are called goal lines. Where barriers or walls are used to enclose the pitch and form the boundaries of the playing area it is not necessary to mark the touchlines or goal lines.

The pitch is divided into two halves by the halfway line. The centre mark is positioned at the mid point of the halfway line. A circle with a radius of 3.0m (diameter 6.0m) is marked around it (irrespective of the pitch size).

The penalty area for each goal is formed by a semi-circle of radius 6m (irrespective of the pitch size) measured from the midpoint of the goal line. The extremities of the semi-circles should reach the goal line, barrier or wall regardless of whether or not the goal posts encroach into the playing area. The penalty mark should be 6m from the mid point between the goal posts and equidistant from them.

Pitches that are not enclosed by barriers or walls (and have run-offs) should have corner arcs marked. These are quarter circles of radius 25cm from each corner of the pitch drawn inside the pitch.

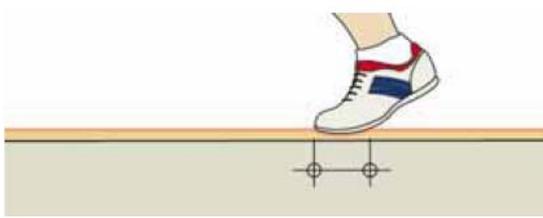
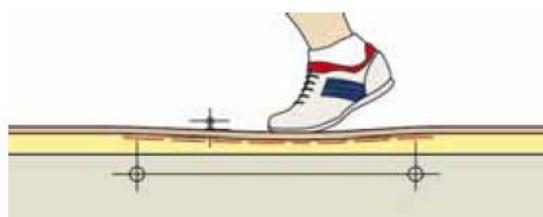
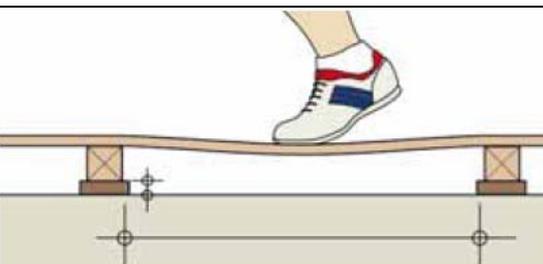
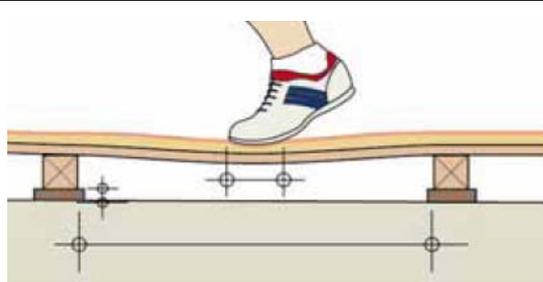
When small sided football pitches are enclosed by the walls of the building the walls must be impact resistant and smooth and finishes should prevent flaking or dusting. There should be no protrusions (structural columns, beams, etc) extending from the walls into the pitch i.e. the face of the wall should follow a straight line. Doors should be avoided, but where no other option exists they must only open outwards.

Where rebound boards (permanent or portable) are used these should be at least 1.2m high. The use of suspended nets above the boards is also common to ensure balls remain within the area of the pitch and do not interfere with activities on adjacent areas.

Playing surfaces

Multi-sport facilities

Small sided football and some forms of disability football are often played in multi-sport facilities that have a wide range of sports surfaces. The performance of these surfaces fall into four generic categories based on the way they respond to impact loadings. They are:

	<p>Point elastic – sports floor to which the application of a point force causes a deflection only at or close to the point the force is applied</p>
	<p>Mixed elastic – a point elastic floor incorporating a stiffening component to increase the area of deflection</p>
	<p>Area elastic – sports floor to which the application of a point force causes a deflection over a relatively large area around the point the force is applied</p>
	<p>Combined elastic – area elastic sports floor with a point elastic top layer to which the application of a point force causes a localised deflection and a deflection over a relatively large area around the point the force is applied</p>

To ensure a sports surface will provide a satisfactory playing environment with

appropriate levels of durability it should comply with *BS EN 14904: Surfaces for Sports Areas: Indoor Surfaces for Multi-sports Use – Specification*.

Due to the wide range of surfaces offered for multi-sports use the British Standard classifies them in terms of their dynamic properties (shock absorption and deformation). Where small sided football is the priority sport it is recommended the sports floor be either an Area Elastic or Combined Elastic floor (in accordance Annex B of BS EN 14904). Where small sided football is just one of a range of sports to be played in the sports hall the requirements of other sports (e.g. cricket training) may mean an Area Elastic or Combined Elastic floor is not suitable. In such cases Point Elastic (type P2 as detailed Annex B of BS EN 14904) or Mixed Elastic floors (types E3 or E4 as detailed Annex B of BS EN 14904) are considered suitable.

Disability Football

Certain types of disability football have specific playing surface requirements to ensure suitable playing environments.





These are:

Discipline	Surface type
Amputee	Long pile (or third generation) synthetic turf (as described in BS EN 15330)
Blind	Sprung timber area elastic floor (category A3 or A4 as described in Annex B of BS EN 14904)
Partially sighted	Sprung timber area elastic floor (category A3 or A4 as described in Annex B of BS EN 14904)
Powered wheelchair	Area elastic floor (category A3 or A4 as described in Table 3)

Dedicated indoor football facilities

The increasing market demand for artificial surfaces that simulate the playing qualities of natural grass and can accommodate the use of studded football boots has led manufacturers to develop new forms of synthetic grass often described as long pile (or third generation) synthetic turf. These surfaces have a much longer pile than the previously used sand filled surfaces and are normally partly filled with rubber and sand mixes, although a small number have no fill. The enhanced playing qualities of these surfaces has led to their rapid acceptance within the football world and stimulated much interest from the game's governing bodies. It is therefore recommended they be installed in dedicated indoor football facilities wherever possible.

Detailed guidance on long pile synthetic turf is given in the FA's Artificial Pitch Guidelines (http://www.thefa.com/GetIntoFootball/Facilities/Artificial_Pitches).

The specific demands of indoor facilities (consistent levels of high use and lack of moisture) will make certain types of synthetic turf surface more suited than

others. Whilst it is recommended specialist advice is taken whenever selecting such a surface, issues that should be considered include:

- infill stability
- fibre wear
- fibre resilience (to stop the carpet pile flattening)
- use of shockpads to aid impact absorption

The potential flammability of rubber filled surfaces needs to be considered when designing indoor facilities and specialist advice should be taken to ensure all relevant building and fire regulations are satisfied.

The most common form of rubber infill used in long pile surfaces is recycled granulated tyres. The smell generated by the infill may be considered unpleasant and the use of alternative (but more expensive) infills is worthy of consideration.



Although primarily referring to full size pitches the FIFA Quality Concept for Football Turf defines the parameters considered necessary for long pile football



surfaces to provide a satisfactory playing environment, together with the necessary levels of durability required to help ensure the surface is able to withstand the wear and tear of everyday use. The FIFA Quality Concept has two categories of surface; the FIFA One Star category has been designed for community use pitches and is therefore the relevant one for small-sided and mini-soccer pitches. The FA recommends that only surfaces that have been tested and shown to satisfy the laboratory test requirements of the FIFA 1 Star category be used.

As even the best quality synthetic turf surfaces will not performance correctly if poorly installed it is recommended the performance of the pitch is tested following installation. As the FIFA Quality Concept for Football Turf is based on full size pitches it is not applicable to small-sided football, but British Standard BS EN 15330 contains similar field test requirements to the FIFA standard and applies to all sizes of pitch.

The maintenance of long pile synthetic turf is quite intensive and will require regular brushing and grooming of the surface with periodic de-compaction of the infill materials. Failure to maintain these surfaces will result in deterioration in performance and a shortening in the surface's service life.

Construction (Design & Management) Regulations

The Construction (Design & Management) Regulations place responsibilities on designers to consider the safety of buildings and ensuring a suitable sports surface is selected is an important part of this responsibility when designing an indoor sports hall.

During the selection of a sports floor independent test results should be provided by the supplier / manufacturer showing their surface's compliance with BS EN 14904 (multi-sport indoor surfaces) or the FIFA Quality Concept for Football Turf - One Star category (synthetic turf surfaces).



Following installation of the floor compliance testing should be undertaken to verify that the floor has been correctly installed and achieves the qualities specified in the relevant Standard; allowing the results of the tests to be recorded in the 'Health and Safety File' for future reference.

Recommended performance criteria for long pile synthetic turf surfaces	
Product test requirements	FIFA Quality Concept for Football Turf – FIFA 1 Star category
Field test requirements	BS EN 15330 (as a surface designed for football)

Recognising the fact that facility operators are increasingly having to defend against personal injury claims it is recommended that the sports floor is also retested periodically throughout its life to demonstrate that it is still providing adequate levels of player protection and is 'fit for purpose' – just because a floor was performing adequately at the time it was installed is unlikely to prove it is still providing satisfactory performance a number of years later. Bi-annual testing is considered a suitable frequency for most facilities.

Goals

The recommend sizes of goals for small sided football are 3.66m wide by 1.83m high. Where a ceiling height is low 4.88m wide by 1.22m goals are often used by senior players and either 3.66m wide by 1.22m high or 2.44m wide by 1.22m by junior players (to provide a satisfactory playing environment the ceiling height of indoor sports/football halls should be at least 6.1m high).

Incorrectly used goals can kill so goal post safety should always be of paramount importance to designers, builders, operators and users of pitches. Goals should be certified as complying with BS 8462: *Specification for Goals for Youth*

Football, Futsal, Mini-soccer and Small-Sided Football and they should be purchased, installed and maintained in accordance with *BS 8461: Football Goals – Code of Practice for their Procurement, Installation, Maintenance, Storage and Inspection*.

When selecting goals and other sports equipment consideration should be given to the precise uses of the pitch so that changes in activity can take place with the minimum of effort and inconvenience. Goals can be freestanding, and therefore easily moved, although it is important to make proper provision for their storage when not in use. This must not be on the run-offs of the pitch.

Lighting

Based on British Standard BS EN 12193 The FA and Sport England recommend that for sports halls in which small sided football will be played the lighting system is designed to achieve the performance detailed in Table 2.



The three classes shown refer to the levels of play. Class 1 refers to top level competition such as international and national matches, Class 2 refers to regional and or club competitions and Class 3 refers to general training and

recreational/school competitions.

Table 2 – performance requirements for lighting			
Property	Requirement		
	Class 1	Class 2	Class 3
Maintained average luminance	750	500	300
Uniformity (Min/Ave)	0.7	0.7	0.7

As most indoor facilities are also used for more than one sport it is important the lighting requirements of the other sports are taken into account. If badminton, table tennis or fencing is to also take place in the sports hall the lighting should either be Class 1 or 2.



References and sources of information

The FA's Artificial Pitch Guidelines

(www.thefa.com/GetIntoFootball/Facilities/Artificial_Pitches)

FIFA Quality Concept for Football Turf

(www.fifa.com/aboutfifa/organisation)

BS 8461: Football Goals – Code of Practice for their Procurement, Installation, Maintenance, Storage and Inspection.

BS 8462: Specification for Goals for Youth Football, Futsal, Mini-soccer and Small-Sided Football

BS EN 12193: Light and lighting. Sports lighting

BS EN 14904: Surfaces for Sports Areas: Indoor Surfaces for Multi-sports Use – Specification.

BS EN 15330: Surfaces for Sports Areas: Synthetic turf and needle-punched surfaces primarily designed for outdoor use – Specification for synthetic turf

SAPCA Construction and Maintenance of Synthetic Turf Sports Pitches

(www.sapca.org.uk)

SAPCA Guide to Maintenance of Synthetic Sports Surfaces

(www.sapca.org.uk)

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