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Siting of Playground and other recreational facilities — Advice on methods for positioning and separation

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National foreword

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Siting of Playground and other recreational facilities - Advice on methods for positioning and separation

Emplacement des aires de jeux et autres installations de loisirs - Conseils sur les méthodes d'implantation et de séparation

Standortwahl von Spielplatz- und anderen Freizeitanlagen - Ratschlag zu Verfahren für Anordnung und Trennung

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European foreword

This document (CEN/TR 16879:2016) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational facilities and equipment”, the secretariat of which is held by DIN.

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Introduction

CEN/TC 136/SC 1, the committee responsible for the development of EN 1176 standards, considered that there may be risks to children associated with placing playgrounds in the vicinity of other recreational facilities such as multisport arenas, bouldering walls, roller sport facilities, football goals, outdoor fitness equipment and Parkour facilities. In addition, environmental features such as fast flowing water, deep water with steep banks, roads, and natural formations such as cliffs, can also create hazards if in the proximity of playgrounds.

Specific safety requirements for recreational facilities are covered by their own standards. However, these individual standards do not cover possible risks related to the proximity to other recreational facilities and other environmental hazards.

This technical report gives advice to designers, providers, and inspectors on methods of positioning and separating different recreational facilities, to help reduce the potential risks.

There are four principal methods of separation. These are distance, natural features, fencing and signage, or a combination of these.

1 Scope

This Technical Report gives advice on positioning and possible means of separation between recreational facilities that have different user age groups and levels of risk. This document also gives advice on features to consider in order to address the risks from other features nearby such as traffic, fast flowing water, deep water with steep banks and other natural environmental features such as.

Information given relates to equipment and facilities that are installed for free-access use outdoors only.

This document is intended to give a horizontal approach, to be considered in all CEN/TC 136 relevant standards dealing with free access sports or physical activity facilities.

2 Normative references

Not applicable.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
recreational facility
equipment intended for children's play and free access sport/fitness facilities for all ages

3.2
separation
all physical and visual methods adopted to distinguish one recreational facility from another

3.3
siting / positioning
planning and layout of an area consisting of recreational facilities and other environmental factors and their relationship to one another

3.4
carer
person who exercises responsibility, however temporarily, for an individual child's safety

Note 1 to entry: This could be either:

a) non-qualified carer: a parent, grandparent, older sibling who has been given a limited responsibility over a child, adult acquaintance, a young person who is a baby sitter; or

b) qualified carer: a person trained to exercise responsibility for the safety of children or young people, for example a trained/qualified teacher, child minder, youth leader or sports coach.

4 Recommendations for separation

4.1 General

The main issue is for young and vulnerable children.

The EN 1176 playground standard has safety requirements for young children using playgrounds. It states in 3.1 in a definition of playground equipment that children play according to "their own rules or own reasons for playing which can change at any time". EN 1176 contains safety requirements taking

into account this free way of playing that young children employ. On most other recreational facilities the acceptable risk level is higher than on playgrounds because they are not intended to be used by young and vulnerable children, and the activity is often prescribed rather than free. The environment around the play area may also contain hazards such as roads, fast flowing water, or deep water with steep banks.

These risks with examples of the related hazards are:

— crushing, e.g. mechanisms in fitness equipment;

— being hit by a fast moving hard object, e.g. skateboard, or football;

— falling onto non-impact attenuating surface from height, e.g. parkour landings and bouldering walls, natural cliffs, trees, playable art;

— being hit by part of some equipment due to unforeseeable movement, e.g. mechanism in fitness equipment;

— unexpected forces, e.g. heavy parts of fitness equipment;

— drowning, e.g. fast flowing river or deep water with steep banks;

— being hit by a vehicle, e.g. road traffic.

4.2 Need for separation

There are three principal reasons for providing separation:

a) To help identify risks to the carers of young and vulnerable children. Normally young and vulnerable children are always accompanied by carers. This is the primary means for keeping them safe. However sometimes carers don't recognize a high risk activity and bring children into such facility.

NOTE 1 Some equipment may look like play equipment though they have a higher risk. Carers may not correctly assess the risk of the equipment for their child.

b) Children may roam away from the playground and continue playing in higher risk areas.

NOTE 2 Children do not just play in playgrounds; they also play in the environment.

c) Persons or play instruments such as footballs can be a hazard to the safety of young and vulnerable children in the vicinity of the higher risk activity area.

NOTE 3 For example, a child behind a football goal could be hit by a football.

Sometimes playgrounds are used by traceurs and bikers. This type of activity could be a risk to young and vulnerable children using the playground. In addition it may damage the playground equipment. The risk of this happening is increased if facilities such as skate parks and Parkour frames are positioned near to playground equipment.

The risk levels of different environments vary greatly. Table 1 lists different recreational facilities and environmental features. It gives an indication of possible risks if young children access that facility and also gives an indication of risks for young children who are near to a facility.

Table 1 — Facilities and/or environmental features and their associated risks

Type of facility and/or environmental feature	**Risk if young and vulnerable children access the facility and/or environmental feature**	**Risks if young and vulnerable children come near to the facility and/or environmental feature**
Playground	Very low risk for the children due to high level of safety requirements from EN 1176.	Nothing
Parkour facility	Medium risk for the children for example due to lack of guarding on landings and lesser impact attenuation.	Nothing
Football pitch	Low risk if a child wanders onto the pitch during the game. No risk at other times.	Low risk due to a chance that a stray-ball hits a young child behind the goal with a great velocity.
Basketball court	Low risk if a child wanders onto the court during the game. No risk at other times.	Very low risk due to a chance that a stray-ball hits a young child nearby with relatively low velocity.
Enclosed multi-sports arena	Very low risk since children cannot easily wander inside the arena during a game.	Very low risk due to a chance that a stray-ball hits a young child nearby with a great velocity.
Roller sports facilities	Medium to high risk if a child gets hit by a skater, or falls from an obstacle.	Nothing
Outdoor fitness equipment	Medium risk to young children due to mechanisms and crushing hazards.	Nothing
Natural play area	Very low risk for the children due to high level of safety requirements from EN 1176. NOTE Sometimes natural play areas do not comply with EN 1176. However the risk should still be very low as risks in the natural environment are well perceived by carers.	Nothing
Nature's formations such as cliffs	Very low risk, potential is high but risks should have been addressed.	Nothing
Road	Occasional, but high risk of injury if a child runs into the traffic.	Nothing
Fast flowing river or deep water with steep banks. Also water with poor visibility which could impair a quick rescue.	Very high risk due to potential of drowning.	Nothing

4.3 Methods of separation

4.3.1 General

Any feature that hinders users from moving between facilities can be considered a method of separation.

4.3.2 Distance

Distance is a good means of separation if space is available. In the same way as it is good practice to separate toddler and junior play areas by distance it is also good to separate playgrounds from other recreational facilities and environmental hazards by distance.

The main risk is to young children, so separation by distance gives a clear indication where one facility ends, such as a play area, and another starts such as an adult fitness space. Also separation allows time for a carer to intervene if the young child starts to move towards an inappropriate facility.

This technical report does not give a specific distance requirement, as it may be affected by other local conditions or national regulations. The need for distance may vary depending on the characteristics of the playground itself and if other means of separation are also used (see 4.3.5).

The distance of separation can also vary depending on the type of facility. For example a parkour structure and a skate park are used by similar groups so can be placed in close proximity. However a toddler play area and an adult fitness area or a busy road is not appropriate in close proximity.

4.3.3 Landscaping

Landscaping is a discreet but effective means of separation between facilities. This can be for example planting, natural banks, changes in levels, walls, pedestrian paths, seats and benches, trees, bushes, ponds and streams. Any element that hinders the movement between two facilities improves separation. For example even a small change in level can contribute to separation in some situations.

Landscaping can also enhance the quality of a play space and improve the play experience of children. Landscaping elements may provide children with an opportunity to develop their personal risk assessing skills.

4.3.4 Fencing

Fences are often seen as obvious means of separation. However they have many disadvantages. If used around the playground, they restrict and disrupt the natural playing of children which should happen according to “their own rules or own reasons for playing which can change at any time”.

If it is too high, a fence may become an obstacle for smaller children and prevent them from having a good sight line to the surroundings, and hinder their play experience. If the design of the fence creates hidden corners, or impairs surveillance by carers, this can also create additional problems. The play area should be as visible as possible from a distance.

Fences can present hazards themselves such as neck entrapment, falling on a hard surface and crushing in a gate mechanism. It is advisable that fences close to playgrounds should comply with the entrapment requirements of EN 1176–1.

If a fence is necessary it should be as low as possible, just to create a low barrier to slow down young children, giving time for the carer to intervene.

If there are several hazards in the proximity of a playground, then fencing the playground may be the preferred option. But if there are only one or two facilities that need separation from the playground, it may be the preferred option to build a fence around the higher risk facilities only. Any higher fences should be placed away from the playground and protect the higher risk activities and not impose restrictions on the play area and its users.

If the play area is very close to a busy road, having no room for distance or landscaping, then a fence could be incorporated as the only suitable option. In this situation the design should prevent young and vulnerable children from being able to easily climb. This can be achieved by design and not just by making the fence high.

Usually total separation is not needed. In this case a low fence, which incorporates well in the environment, can be sufficient.

4.3.5 Signage

Signage is generally not a very effective method of separation. The only benefit is to provide necessary information for carers about the risks of the facility.

Signage should say what the facility is, rather than saying what it is not. It should be easy to see, positioned in a strategic position and the information easy to read using pictograms where possible.

Normally children do not read signs and they can't be relied upon to follow the instructions.

4.3.6 Combinations

Quite often the best means of separation is a combination of distance and landscaping. If this method is adopted, then a fence should not be needed at all.

5 Risk-benefit assessment (RBA)

All settings are different. It may be that there is an existing playground and a high-risk facility is being added. Or it can be a completely new leisure environment. Therefore it is important to carry out an RBA for each individual location. There are always some risks, but there are always many benefits to leisure activities. Carrying out an RBA will enable the provider to decide what the most effective method of separation should be. It can take into account all local conditions and factors, and highlight where the potential issues are likely to be. It can also be used to ensure good play value is maintained.

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