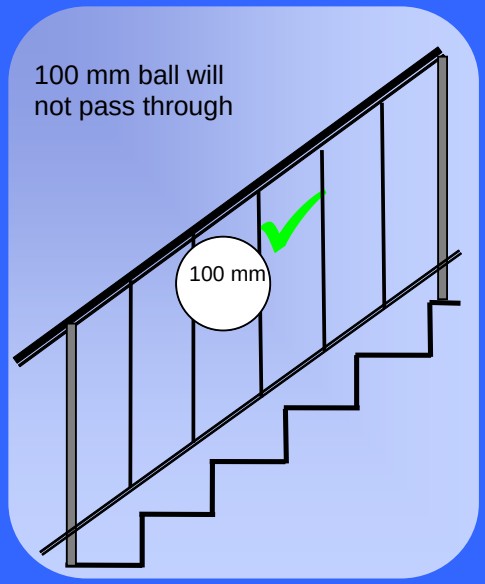
ARE YOUR BARRIERS SAFE ?

Protective Barriers in Existing Non-Domestic Buildings



A building regulation guide to openings in protective barriers such as railings or balustrades

RoSPA The Royal Society for the Prevention of Accidents — Working for a safer Scotland

SABSM Incorporating SACBCO

The Scottish Government

SPF Scottish Property Federation

Introduction

Protective barriers, commonly in the form of railings or balustrading, are provided for most buildings. These are to prevent people falling from changes in level, for example, at the sides of stairs and balconies.

To be effective, it is important that any gaps or openings in protective barriers do not allow people to fall through. This is particularly important for the protection of children.

New buildings

Recent changes to building regulations now mean that openings in protective barriers within most 'non-*domestic* buildings' are constructed to prevent a child from passing through. (For the purpose of this guide a 'non-*domestic building*' is any building that is not a dwelling.) In other words, that all new buildings, with a few exceptions, will have barriers with openings or gaps that will not permit the passage of a 100 mm diameter ball.

Existing buildings

Building regulations apply where new construction work or a conversion takes place. Therefore they do not apply retrospectively to existing properties. A key purpose of this leaflet is to raise awareness of hazards that may exist for children in existing 'non-*domestic buildings'* with a protective barrier having gaps or openings larger than 100 mm. Such gaps may constitute a risk to children by not offering adequate protection.

N.B. *The triangular gap between step and the lowest edge of the barrier may be larger than 100 mm*

Children in buildings

There will be buildings where access for children will be precluded for valid reasons such as those relating to Health & Safety. This may generally be anticipated to be within industrial or factory type buildings.

For most other buildings it is unlikely that the presence of children can ever be ruled out with any degree of certainty.

Young children have a limited perception of risk in their environment and, whilst trying to be independent, lack some balance and co-ordination skills that older children have. Therefore they can easily find themselves in dangerous situations especially within buildings that they may be less familiar with.

Hazards

Some hazards within a non-domestic building will be obvious to users and visitors, such as machinery or plant. Less obvious will be the potential hazard that a protective barrier may present if it contains gaps or openings large enough that a child may be able to pass through. In these situations it is less likely that an accompanying adult would readily identify the hazard and so take appropriate measures to minimise the risk of an incident.

Consideration should also be given to the potential hazard that an easily climbed barrier may present to children, for example barriers with horizontal rails. Toddlers are especially curious and love to climb.

Recommendation
Generally, barriers that have been designed with openings that will prevent the passage of a 100 mm diameter ball will protect all the occupants or users of a building, including children.

For all existing 'non-*domestic*' buildings it is recommended that an assessment of protective barriers should be carried out to determine if they will protect children.

Assessing barriers in existing buildings
Owners, or alternatively those with a management responsibility for buildings, should establish the following:

- Are there any protective barriers in the building containing gaps or openings greater than 100 mm?
- Are wider openings necessary for operational or other valid reasons ?
- Are children precluded from the area where any protective barrier is located?

Addressing these questions will assist in the consideration of the need to:

a) make gap or opening adjustments to protective barriers in the building.
b) implement measures to preclude children from any area having protective barriers with wide gaps or openings.

Gap reduction
Alterations to any existing protective barriers should be based on reducing any gaps or openings so that they will not permit a ball of 100 mm diameter to pass through. This can be easily achieved by providing additional rails, balusters, infill panels or secure mesh to barriers where they join the adjacent structure.

If it is necessary to alter the structure of a protective barrier then the advice of a professional should be sought prior to carrying out the work. This should ensure that any revised barrier design will be suitable for the expected loadings and that the barrier will be securely fixed.

Historic Buildings
In certain cases, buildings may be of historic interest, listed (under planning legislation) or may be located in a conservation area. Alterations to these buildings could impact on the architecture or character of the building. In these circumstances, where a protective barrier has to be altered to protect children, it may be necessary to adopt a solution that is sympathetic to the character of the building. Guidance on this matter is contained within the 'Guide for practitioners 6 - Conversion of traditional buildings' issued by Historic Scotland. You should also discuss the proposals with your local planning authority.

Further information
Not all work to protective barriers will require formal building regulation approval. However, any work to be carried out to the barriers must comply with the building standards that are applicable.

Further information on the need for approval can be obtained from local authority building standards departments.

Further technical information and guidance on building standards is available within the Scottish Building Standards Non- Domestic Technical Handbooks. In particular other aspects of guidance for protective barriers is available in Section 4: Safety. The Technical Handbooks can be viewed or downloaded in printable format from the website www.scotland.gov.uk/bsd

This document was produced in partnership by the following:

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- Scottish Property Federation.(SPF) www.scottishpropertyfederation.org.uk
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- Scottish Government Building Standards Division(BSD) - www.scotland.gov.uk/bsd

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