Technical Guidance

Guarding to treads and risers

Question
On stairs, does the maximum permitted opening in the guarding include the triangle formed between the tread, the riser and the lower edge of the guarding?

Considerations

- Approved Document K (England & Wales), Scottish Building Standards Technical Handbook Domestic Section 4.4 and Building Regulations (Northern Ireland) Technical Handbook H, all say that to prevent children falling through or being held fast by the guarding, the construction should be such that a 100mm sphere cannot pass through any opening in it.

- NHBC Standards clause 6.6 - S11 contains a diagram showing the maximum permitted openings within the guarding and between a floor and lower rail to guarding on a landing. The diagram does not include the triangular void formed between a tread and riser.

- The risk of a child getting trapped by the guarding on communal stairs, where children would normally have limited and supervised access, is considered relatively low. Inside dwellings where a child may have unsupervised access to the stairs the risk of becoming trapped is greater.

Answer
In dwellings any triangular opening formed between the tread, riser and lower rail to the guarding should not pass a 100mm sphere (see diagram 1).

On communal stairs a larger triangular gap is acceptable providing the bottom of the guarding is not more than 50mm above the pitch line as shown in diagram 2.
Guarding detail showing triangular opening between tread, riser and bottom rail to guarding.