

Guarding to Balconies

Purpose

BCA technical guidance notes are for the benefit of its members and the construction industry, to provide information, promote good practice and encourage consistency of interpretation for the benefit of our clients. They are advisory in nature, and in all cases the responsibility for determining compliance with the Building Regulations remains with the building control body concerned.

This guidance note is based upon information available at the time of issue and may be subject to change. The Approved Documents should be consulted for full details in any particular case.

Introduction

This guidance note concerns the design of guarding provided to balconies where there is a section of parapet below the handrail.

When considering guarding to balconies, a minimum guard height of 1100mm measured from balcony floor level is required to ensure adequate protection from falling in accordance with the guidance in Approved Document K (England). Identical principals are applicable in Wales.

Where the building is to be used by children under the age of 5, the guarding needs to be designed so as not to be readily climbable by children.

Key Issues

Parapets can provide platforms that aid climbability by children. As such, the recommendations for the overall guarding height to balconies may not be appropriate to afford the required protection and to ensure the safety of the occupants and hence achieve compliance with the functional requirements.

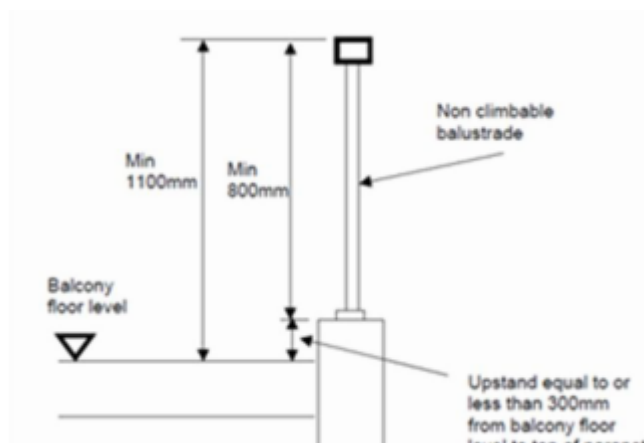
According to Childata, 50% of four year old children can step up 410mm, and 3% can step up 550mm. Any cill height lower than 600mm may therefore be considered readily climbable by children.

According to Childata, only 5% of four year old children are taller than 1200mm so most would be fairly stable standing on an upstand such as a parapet if a minimum guard height of 700mm were to be maintained. The following guidance is based on these guide dimensions.

Guidance

Balconies with parapet heights up to 300mm above balcony floor level

Diagram 1 illustrates where an upstand is formed (up to 300mm high) to the base of the balcony. In this case a minimum 800mm non climbable guard height should be maintained above this level.



Balconies with parapet heights between 300mm and 1100mm above balcony floor level

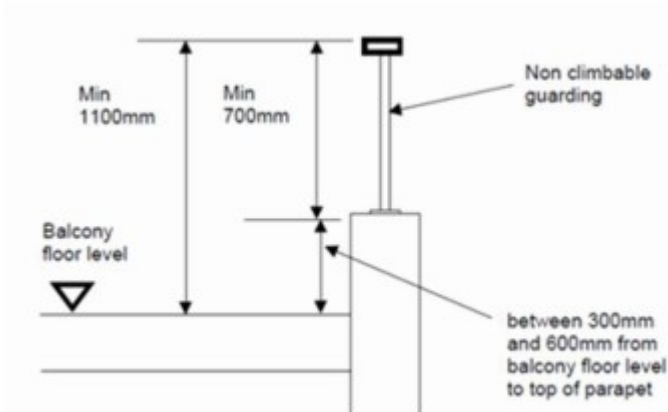


Diagram 2 – Indicates acceptable guarding arrangements where parapet heights are between 300mm and 600mm above balcony floor level. At this height the parapet may be considered as providing an easy step up for a child. Hence a safe non-climbable minimum Barrier height of 700mm needs to be maintained above this level.

Diagram 3 – Indicates acceptable guarding arrangements where parapet heights are 600mm or more above balcony floor level. At this height the parapet is not considered to provide an easy step up for a child. In this case, all that is required is that the overall minimum barrier height of 1100mm should be maintained above balcony floor level. This could be achieved by the addition of barrier rails on top of the parapet which may be either horizontally or vertically aligned.

