

# BUILDING REGULATIONS GUIDANCE NOTE NHBC BUILDING CONTROL

## GLAZING, GUARDING AND RESTRICTORS IN DWELLINGS

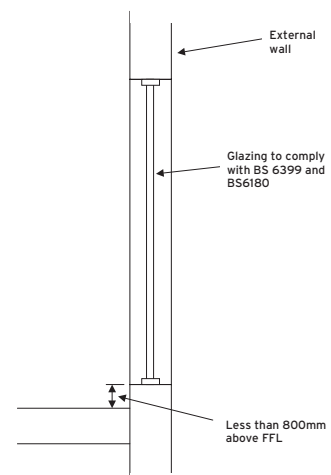
Part N of the Building Regulations seeks to ensure that where people are likely to come into contact with glass it is unlikely to cause injury or the glazing will resist impact or be shielded or protected from impact. However, glass is increasingly being used in locations that require it to act as guarding from falling. In these cases the glazing needs to comply with the requirement and guidance in Part K2 of the Building Regulations - Protection from falling.

### BALCONIES, LANDINGS AND STAIRS

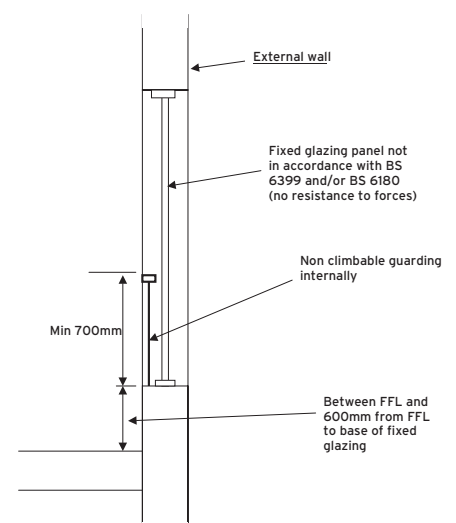
Where balconies, landings and stairs within a dwelling require guarding, any glazing used as part or all of that guarding should comply with the requirements of Part N and Part K. As in all parts of the Regulations, the most onerous requirement takes precedent. The Approved Document to Part K provides guidance on the height above floor level at which guarding should be provided and any glazing acting as guarding should be designed to resist the forces and impact as laid down in BS6399 and BS6180, even where the glass is in a critical location as defined in the Approved Document to Part N. Therefore, glazing that protects people from falling must meet these requirements

### FIXED LOW LEVEL GLAZING

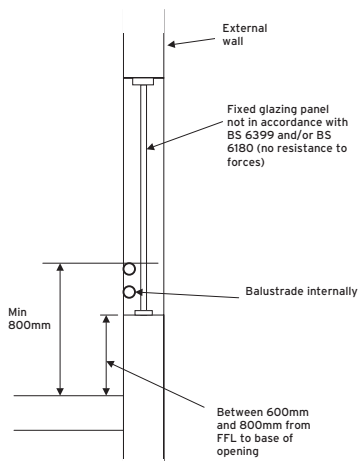
Where the design incorporates low level glazing, less than 800mm above internal floor level such as a window, that is fixed (not openable), glazing and the framing will need to function as guarding where the difference in floor levels exceeds 600mm. The glass should be designed to resist the forces referred to in the British Standards above. Alternatively, suitable guarding, that resists the forces referred to and complies with Part K with respect to height and non-climbability must be provided. See Diagrams 1, 2 & 3.



**Diagram 1**  
Fixed glazing required to act as guarding



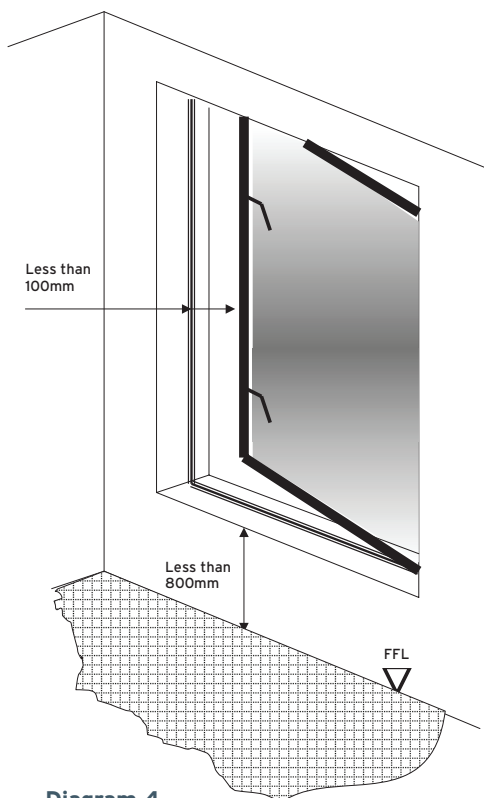
**Diagram 2**  
Fixed glazing not required to act as guarding  
(cill under 600mm above FFL)



**Diagram 3**  
Fixed glazing not required to act as guarding  
(cill over 600mm above FFL)

### OPENABLE LOW LEVEL GLAZING

Where the design incorporates low level glazing (less than 800mm above internal floor level) that is not fixed, eg. an openable window, the glazing will still need to act as guarding where the difference in height exceeds 600mm. The window must be prevented from opening more than 100mm in order to comply with Part K. This means that restrictor devices commonly fitted to windows would not be suitable because they can be released, by a key or manually, to allow the window to open more than 100mm. In this position occupants would not be afforded the required level of protection from falling. Therefore, suitable guarding that resists the forces referred to in the above British Standards and complies with Part K with respect to height and non-climbability, must be provided, such as vertical balustrading.

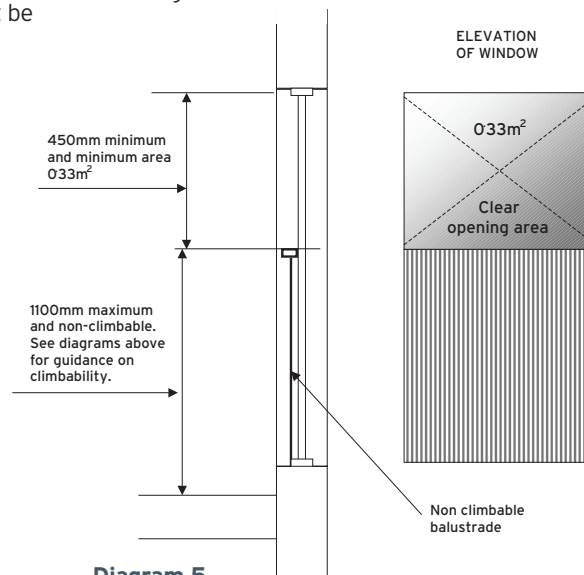


**Diagram 4**  
Openable glazing required to act as guarding

Alternatively, 'permanent' restrictors, those that cannot be released and would not allow an opening where a 100mm sphere could pass through, may be suitable. This type of restrictor would also need to be capable of resisting the loads detailed in BS6399 and BS6180 along with the glass, glazing and window structure. However, this may affect the minimum purge ventilation requirement under the guidance in Part F, which requires a minimum of 1/20th floor area of the room served by openable windows (height x width of opening part where the window opens 30 degrees or more). Where the window opens between 15 and 30 degrees that area needs to be doubled, ie. 1/10th floor area of room served. Therefore, it may not be a feasible alternative. See Diagram 4.

### OPENABLE LOW LEVEL GLAZING AS ESCAPE WINDOWS

Where low level windows are also designed as escape windows, 'permanent' restrictors would not be suitable as they would prevent the window opening wide enough to allow escape. Low level windows fitted with restrictors that can be easily released, would be acceptable but only where suitable guarding is also provided. To be suitable for means of escape, the top of the guarding should be between 800mm and 1100mm above the floor level and the minimum dimension, 450mm, and area of the opening, 0.3m<sup>2</sup>, should be measured from the top of the guarding up to the top of the opening. See Diagram 5.



**Diagram 5**  
Escape window with suitable guarding

### REFERENCES

Approved Documents K and N - 1998 editions  
Part F - 2006 edition  
BS 6399: Part 1: 1996, BS 6180: 1995

This leaflet has been printed on material which is produced from well-managed forests and is fully recyclable and biodegradable, ECF (elemental chlorine free) and is made to ISO 14001 Environmental Certification.



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