

Date: 24/02/06

Ref: 45/3/177

Note: The following letter which has had personal details edited out was issued by our former department, the Department for Environment, Transport and the Regions (DETR). DETR is now Communities and Local Government - all references in the text to DETR now refer to Communities and Local Government.

Appeal against refusal by the borough council to relax requirement K1 (Stairs, ladders and ramps) of the building regulation 2000 (as amended) in respect the headroom over a stair, forming part of completed building work.

The proposed work

3. The building work was carried out to a two storey, four bedroom house, with a plan area of approximately 8m x 20m, and was completed in 2004. The work involved opening up the ground floor living accommodation, general refurbishment, and the installation of a second stair which extended from the ground floor into the roof space, which was also converted into living accommodation to provide a third storey. Your appeal relates to the issue of the headroom provided over the new stair from first floor level to the new second floor.

4. You comment that the plans submitted to the Borough Council for approval proposed the provision of a new spiral stair with the roof over the stair to be left as existing, ie a timber tiled roof with plasterboard to the soffit, although the roof adjacent to the stair was a new glazed roof which extended over a porch and first floor study area. You state that the stair was originally designed on the basis of a standard spiral stair design, and that the plans indicated that the headroom over the upper part of the upper flight of this stair was adequate to meet the requirements of the Building Regulations. The Council issued a full plans rejection notice on 14 April 2000 on a number of grounds, but you indicate that the headroom issue was not raised before work commenced.

5. However, you explain that when the spiral stair was commissioned the design was altered slightly to meet the manufacturer's standard components. It comprises winding and straight sections and the number and rise of the treads were altered, which meant that when the stair was installed the headroom over the top section of the stair (which is now straight) was significantly reduced. In order to try to resolve this problem, you removed the existing roof over the stair and extended the glazed roof section over the stairwell, which increased the available headroom by approximately 100mm to the underside of the glazing bar, and 200mm to the plane of the glass. As a result of this amendment, you state that the stair as installed has a headroom

under the glazing bar of approximately 1900mm on the top tread (2060 to the plane of glass), 1825mm on the second tread (1985 to the plane of glass) and 1750mm on the third tread (1910 to the plane of the glass), but below this, due to the curve of the stair, the headroom is compliant with the requirements of the Building Regulations.

6. You considered a proposal by the glazing contractor to further improve the headroom over the stair but rejected this because it would ameliorate, and not solve, the problem as it would weaken the structure unless prohibitively expensive and unsightly measures were taken.

7. Following the completion of other outstanding issues relating to the building work, which included the installation of an external escape stair from the new second floor level as an alternative means of escape to the new accommodation stair, you have endeavoured to obtain a 'completion certificate' for the work. As you were not able to reach agreement in your discussions with the Borough Council in relation to the required headroom over the new stair in question, you decided to formally apply for a relaxation of Requirement K1 of the Building Regulations. This was refused by the Council on 2 August 2005, on the grounds that the required headroom is 2m, and it is against this refusal that you have appealed to the Secretary of State.

The appellant's case

8. You submit the following grounds to support your appeal:

(i) Although you accept that there is "strictly speaking" a contravention of the Building Regulations, the area over which the contravention exists is de-minimus in relation to the new stair as a whole, and that the remainder of the stair has adequate headroom in accordance with Requirement K1.

(ii) The new stair is an accommodation stair and the scheme has a secondary means of escape from the floor to which the stair gives access (ie the external escape stair installed as part of the building work).

(iii) Because of the nature of a spiral stair, the area where the contravention occurs is in your view an area where it is less likely that someone may be walking, and thereby receive an injury. This is confirmed by the fact that during the intervening four years since the completion of the project there have been no instances where someone has been injured as a result of the limited headroom.

The Borough Council's case

9. As indicated above, the Borough Council has refused your relaxation application because the Council considers that the headroom required over the new stair in question is 2m which in your situation is reduced to 1750mm in the worst case (ie the third tread).

10. The Borough Council refers to an agreement reached at a site meeting on 11 January 2001 "*that the architect would speak to the manufacturers of the glazed roof to establish whether the steel purlins could be moved to improve the headroom*" over the stair, but notes that only one further site visit was requested in June 2002 until a final inspection was requested in January 2005.

11. The Borough Council concludes that in your case the difference between the required headroom and the headroom provided over the stair is too great for the Council to contemplate a relaxation / waiver of Requirement K1, and the existing occupants' willingness to live with the situation is not a consideration.

The Secretary of State's consideration

12. The Secretary of State is aware that falls on stairs in dwellings are a very common type of accident resulting in about 500 deaths per year and many thousands of injuries. He therefore, considers that good stair design makes an essential contribution to life safety.

13. In considering this appeal the Secretary of State has first considered to what degree the new stair in question may fall short of compliance with Requirement K1, which states:

"Stairs, ladders and ramps shall be so designed, constructed and installed as to be safe for people moving between different levels in or about the building."

14. The guidance on headroom given in *Approved Document K (Protection from falling, collision and impact)* (paragraph 1.10) is that a headroom of 2m is adequate on access between levels. The Approved Document guidance recognises that it is not always practical to achieve this headroom in loft conversions, and suggests that 1.9m is satisfactory at the centre of the stair, and may be reduced to 1.8m at the side of the stair. This assumes that the walking line passes under the 1.9m region, so only the walker's shoulder will be in the 1.8m region.

15. In this case, you state that the headroom under the glazing bar for the top three treads of the stair is: 1900mm, 1825mm, and 1750mm. The headroom to the glass is about 160mm greater. The headroom is not such an issue for the lower treads.

16. It appears from your drawing that the stair is about 800mm wide, and at the upper end it comprises winders leading to the top four straight treads. The glazing bar runs parallel to the walking line of the top four straight treads, and effectively reduces the width of the stair to about 500mm. In the Secretary of State's view, users ascending the winding part of the stair are likely to favour the wider part of the tread at the side of the stair, which will take them closer to the glazing bar when they reach the four straight treads at the top. The reduced headroom towards the side of the stair is the hazard, and the risk is that a user could collide with the glazing bar while on one of the upper treads and could fall several rises before the fall was arrested by the curve of the winding part.

17. The Secretary of State notes that the original design of the stair avoided the current headroom problem, but the design was changed without adequate consideration of the effect it would have on headroom.

18. In the Secretary of State's opinion, the provision of an external escape stair is not relevant because the stair in question will remain the main stair to and from the new second floor. The fact that the headroom limitation only applies to a few treads is also not considered relevant. The important consideration is that the problem is near the top of the stair, where a fall could result in the greatest injury. The Secretary of State considers that a reduction in headroom to 1750mm, close to the walking line, presents a greater hazard than the situation depicted in *Diagram 3 of Approved Document K*.

19. The Secretary of State recognises the difficulty of carrying out building work in existing buildings, but he believes that in this case the low headroom problem could, and should, have been avoided and that there are no extenuating circumstances which would justify relaxing Requirement K1.

The Secretary of State's decision

20. The Secretary of State has given careful consideration to the particular circumstances of this case and the arguments presented by both parties.

21. As indicated above, the Secretary of State considers that compliance with Requirement K1 makes an essential contribution to life safety and as such he would not normally consider it appropriate to relax or dispense with it, except in exceptional circumstances which - in his view - do not apply in this particular case. He has therefore concluded that it would not be appropriate to relax Requirement K1 (Stairs, ladders and ramps) of Schedule 1 to the Building Regulations 2000 (as amended) in relation to the new stair in question. Accordingly, he dismisses your appeal.