

Date: 16/06/99

Ref: 45/3/112

*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.*

## **Building Act 1984 - Section 39**

### **Appeal against refusal by the Borough Council to dispense with Requirement B4 (Fire Safety - External Fire Spread) of the Building Regulations 1991 (as amended) in respect of a new covered market**

#### **The appeal / the building work**

3. The proposed building work to which this appeal relates comprises the erection of a new, single storey covered market building, measuring approximately 39m x 30m, with a height to eaves of 4.35m. The building is open on all sides. The main structure is a steel frame of 139mm diameter steel columns supporting a steel lattice rafter roof, 120mm deep 'Z' purlins and timber rafters. The structure contains three lock-up units, two of which have an elevation facing the eastern boundary and achieve 30 minutes fire resistance.

4. The roof is of a ridge and hip design at 15 degree slope with a 6m wide lantern roof running along the length of the ridge line. This higher roof produced a ventilation opening at the time of the lodging of your appeal, and thus provided ventilation through the roof. The lantern roof has since been glazed-in but this appeal is to be determined on the basis of the high roof lantern remaining permanently open for ventilation. The roof finish is a proprietary prefabricated roofing tile which achieves an 'AA' rating, in accordance with Table A5 of *Approved Document 'B' (Fire safety)*.

5. The building has three boundaries fronting onto a road and/or pedestrianised street, whilst the eastern boundary fronts directly onto a Methodist church and the gable wall of the town centre's main shopping complex. The roof overhangs the columns of the structure by 1.2m, rendering the effective distance to the nearest point on the eastern boundary (the church) to be 2.8m, increasing to 8.48m at the farthest boundary.

6. There is no compartmentation within the building. The Borough Council have assumed that the fire load of the building is no different than from any other retail premises and consider that standard boundary distance/unprotected area criteria apply.

7. The original proposals for this building work with four open sides were the subject of a full plans application which was rejected by the Borough Council because no compensatory measures were put forward to allow for any space reduction. However, you considered the guidance in *Approved Document B* suggesting that the minimum distance between the building and its nearest boundary should be 12m, or the provision of a reduced amount of unprotected area, to be unreasonable. You therefore applied to the Borough Council for a dispensation of Requirement B4. The Borough Council refused your application and it is against their refusal that you have appealed to the Secretary of State.

8. The Borough Council consulted the occupiers of the Methodist Church because their interests would be affected by the application for a dispensation. No response was received.

### **The appellant's case**

9. You make the following points in support of your case for a dispensation of Requirement B4:

(i) with the exception of the timber rafters supporting the roof, the building is constructed entirely of non-combustible materials

(ii) the site location would tend to limit the possibility of fire spread to adjoining buildings, particularly in view of the fact that it is bounded on three sides by roads and pedestrianised streets

(iii) paragraph 13.11 of *Approved Document 'B'* makes reference to canopy type structures, which you state your client's building clearly is. This paragraph states that "*in view of the high degree of ventilation and heat dissipation achieved by the open sided construction, and provided the canopy is 1m or more from the relevant boundary, the provisions for space separation could reasonably be disregarded*". You also argue that canopies are permitted for petrol stations which are much more dangerous than an open market

(iv) good ventilation exists within the roof space via the open lantern roof which is provided, in addition to the open sides which exist at ground level. The area of the building is 1200m<sup>2</sup> and the amount of available free ventilation which exists is 710m<sup>2</sup>. Therefore, the building classification would be Type 2 (fully ventilated) under the definition provided by the Building Research Establishment within part 2 of their report entitled *External fire spread: building separation and boundary distances*

(v) the structure is used for market trading and it is intended to be open on all four sides. You therefore consider that if the open nature of the structure was compromised and screen walls were introduced, the resulting situation would be of greater danger to the public.

(vi) the type of activities being carried out underneath the canopy could not, in your view, be considered as dangerous. No gas is supplied to the building and the use of electricity is limited to small power operations. Therefore, you consider the chances of the structure catching fire are remote. In addition, due to the nature of the building it is only operational for a maximum of 12 hours a day. On-site storage is limited to 3 No. 30 minute fire resisting lock-ups, therefore, the fire load is considerably different to that of a shop and does not exist for 50 percent of the time. You make the point that most fires occur when buildings are not occupied or supervised

(vii) the previous use of the site, as an open air market, was not considered to be a fire hazard. You therefore consider it is difficult to appreciate that covering the market with a canopy presents a greater risk.

### **The Borough Council's case**

10. In support of their decision to refuse your application to relax/dispense with Requirement B4 of the Building Regulations 1991, the Borough Council maintain that the covered market is clearly a building with a significant fire load and, as such, space separation/unprotected area criteria should be considered to safeguard the health and safety of occupants of adjoining buildings. The Borough Council has confirmed that it is only the eastern boundary which is of concern to them, where at its nearest point the structure is 2.8 metres away from the buildings opposite increasing to 8.48 metres at the furthest point.

11. The Borough Council are of the opinion that Requirement B4(1) (Fire Safety - External fire spread - external walls) of the *Building Regulations 1991* is relevant and it is therefore appropriate that this type of building meets with the space separation/unprotected area criteria. The Borough Council confirm that buildings adjacent to the eastern elevation of the covered market are cited on or close to the boundary, and in fact the windows of the adjacent shop (which comprises part of the shopping complex) would exceed the permitted amount of unprotected area if it were new build. The Borough Council go on to state that if the covered market was allowed as proposed, the risk of spread of fire as a result of both sides having insufficient separation, would be unacceptably high. The Borough Council point out that the covered market development should not be detrimental to any redevelopment of the adjoining site. Lack of space separation would prejudice this.

12. The Borough Council are aware that the building is predominately constructed of non-combustible materials, however, their concern relates to the actual contents of the market and the heat which could be radiated across the boundary if a fire should occur. The Borough Council feel that the type of activities which take place are no different to that of a shop and therefore the probability of a fire occurring is no different to any building of this type. The Borough Council appreciate that at night the contents are predominately removed, but nevertheless it is not possible to predict when a fire might occur.

13. The Borough Council do not consider the building to be a canopy. The Borough Council consider that if a fire were to occur under this roof it would behave in the same way as any enclosed roof area, and as such separation distance and unprotected area is relevant. The Borough Council claim that the reduction in space separation for canopies has previously been for petrol stations or similar, which this is clearly not. The Borough Council go on to state that the building is not compartmented, therefore a fully involved fire could occur. This would happen by the possible spread of fire between stalls and as a result of heat build up within the roof. The Borough Council confirm that the classification of the building, for the purposes of *Approved Document B* is 'Shop/Commercial'. The Borough Council view the contents of the shop as being variable, as it is in many shops and so the fire load of the building should be classed as medium.

14. The Borough Council identify three methods referred to within *Approved Document B* used for determining the space separation required for a given building; namely: 'Other Building or Compartments' (Referred to as Method 2 within *Approved Document B*), 'Enclosing Rectangles', and 'Aggregate Notional Area'. The Borough Council confirm that by using these methods it can be calculated that the market building is far too close to the eastern boundary, considering it has 100 per cent unprotected areas. In this instance it is the enclosing rectangle method which allows the smallest separating distance that the building needs to be from the boundary, ie 11.25 metres. The Borough Council also make reference to Part 2 of the Building Research Establishment report, entitled '*External fire spread: building separation and boundary distances*', which deals with the concept of heat radiation from fires. The Borough Council confirm that they are of the opinion that the building falls within the Type 1 category of this method, as it has restricted ventilation (ie through the lantern) due to the fact that the amount of available free ventilation is less than the floor area of the building. Based on this, the minimum distance to the boundary for this method should be 12 metres.

15. The Borough Council state that a number of discussions took place with representatives of the owners of the building at full plans application stage to see if alternative options could be developed to satisfy both the Building Regulations and the end user. The Borough Council confirm that they are not against reducing the necessary space separation required, subject to the provision of a compensatory measure. The Borough Council cite the following alternative options which were discussed prior to a full plans application; the fitting of a sprinkler system; the fitting of a drencher/deluge pipe to the eastern boundary to create a water curtain; the fitting of fire resisting roller shutters activated in a fire situation; and the reduction of the amount of unprotected area on the eastern boundary by the introduction of fire resisting walls. The Borough Council found that none of the aforementioned options were considered acceptable by the end user, and therefore as no compensatory measures were put forward with the original Building Regulation application they had no alternative but to reject it.

16. The Borough Council have consulted with the County Fire Officer who supported their decision not to dispense with Requirement B4.

## The Department's view

17. The Department accepts that the eastern elevation of the building does not meet the guidance given within *Approved Document B* with regard to external fire spread, if the open side of the building is to be treated as an unprotected area. The Department therefore considers that the Borough Council were correct in giving consideration in this case to the need for the provision of adequate space separation and unprotected area criteria. However, you have raised a number of issues which the Department addresses below:

(i) the Department accepts that the roof, with the exception of the timber rafters, is constructed of non-combustible materials. Nevertheless, the Department considers the point at issue to be fire spread from within the structure and not from the roof

(ii) the Department accepts that the risk of fire spread on three sides of the structure is limited, but the point at issue is fire spread across the eastern boundary

(iii) you have pointed out that *Approved Document 'B'* makes reference to 'canopy type structures' which would permit the guidance on space separation to be disregarded. However, the Department notes that the floor area and consequential volume is relatively large. In the Department's view this could contain a high fire load which could radiate across a boundary and cause fire spread to adjoining buildings

(iv) the Department is unable to comment on the previous use of the building or the previous consents that may have been granted. However, the Department does not accept your view that the construction of screen walls on the eastern boundary would compromise public safety. The Department does assume however that in making this statement that Requirement B1 would be complied with to the satisfaction of the Borough Council

v) you contend that the structure will have limited use, with the market being open for only 12 hours a day, and the Department accepts that this may be the case. However, this does not detract from the fact that a fire may occur when the building is in use.

18. In view of the above points the Department considers that the Borough Council were correct in refusing to relax Requirement B4. However, the Department also supports the Borough Council's view that compensatory measures could be taken into account if consideration is given to the level of space separation which they require.

## **The Secretary of State's decision**

19. You have appealed to the Secretary of State against the Borough Council's decision to refuse to dispense with Requirement B4 of the Building Regulations 1991. Requirement B4 is a life safety matter and as such the Secretary of State would not normally consider it appropriate to either relax or dispense with it.

20. The Secretary of State has given careful consideration to the facts of this case and the arguments put forward by both parties. He has concluded that there are no extenuating circumstances which would justify either a relaxation or a dispensation of Requirement B4. He has therefore concluded that the Borough Council came to the correct decision in refusing to dispense with Requirement B4 of Schedule 1 to the Building Regulations 1991 (as amended) and hereby dismisses your appeal.