

Date: 11/06/99

Ref: 45/1/163

Note: The following letter 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 16(10)(a)

Determination of compliance with Requirement B4 (Fire Safety - External Fire Spread) of the Building Regulations 1991 (as amended) in respect of a thatched roof reinstatement

3. In making the following determination, the Secretary of State has not considered whether the plans conform to any other relevant requirements.

The proposed work

4. The building to which the proposed building work relates is an historic single storey detached farm out-building and your drawing indicates that the foot print of the building is approximately 10m x 5m. A copy of a photograph forming part of the sales particulars of the farm in around 1917 indicates that the farm out-building originally had a thatched roof, although this was replaced with corrugated sheeting which remains the current roofing material. The walls of the building are clad in timber which you propose should remain.

5. The site plan shows that the farm out-building is bounded on one of its long sides by a road and that there are two nearby existing thatched roof properties. One of these properties is to the side of the farm out-building and within the same curtilage. It is separated from the farm out-building by a driveway giving access to garages at the rear. The minimum separation distance is 8.095m. The second property is located on the opposite side of the road at a minimum distance of approximately 15m.

6. The proposed building work comprises the removal of the existing corrugated roof sheeting and its replacement with thatch (Norfolk reed). You propose to install a permanent ridge water drenching pipe which will run the full length of the roof and will have a stop valve located close to the exit to the property so that a deluge of water can be supplied quickly to both sides of the roof in a fire situation. You state that you propose to lay the thatch on a non-combustible lining board and an aluminium barrier foil to help prevent fire spread. You also propose to erect a 1.8m high wall around three sides of the farm out-building - ie on the north side between the road and the farm out-building, and on the east and west sides. Adjacent to the proposed west wall is a public footpath.

7. Your letter refers to the possibility of the drenching pipes being connected to heat sensors located in the thatch; and your thatchers letter refers to the option of treating the thatch with a fire retardant. However, the department has taken it that these do not form part of your proposals for determination and the following is based on that assumption.

8. Your original proposals were the subject of a full plans application which was rejected by the district council on grounds of non-compliance with Requirement B4 (Fire safety - External fire spread) of the Building Regulations 1991. The district council were not prepared to accept that the reinstatement of the thatched roof of a timber clad property would be in compliance with Requirement B4 because the roof would be susceptible to ignition from both within and outwith its boundaries. You contend that your proposed mitigating fire safety measures mean that your proposal would be in compliance and it is in respect of this question that you have applied for a determination.

The applicant's case

9. You point out that the local planning authority as well as the Parish Council and neighbours are all in favour of you replacing the existing corrugated roof sheeting on the farm out-building with thatch, and you consider that thatching the farm out-building will keep it in character with the surrounding properties within the area. You also make the following points in support of your application:

(i) the mitigating fire precautions such as the drencher pipe fitted to the ridge, and the fire resisting layer of board and foil on which the thatch is laid will help prevent fire spread from both the inside and outside of the property

(ii) if considered necessary the surface of the thatch can be treated with a fire retardant spray

(iii) the fire precautions and materials used in the new roof construction for the farm out-building will be better than those in existing thatched roofs in the vicinity

(iv) the new brick wall surrounding the farm out-building will help prevent the transfer of fire to and from the property. Also all shrubs and undergrowth will be cut back and regularly maintained to eliminate the possibility of fire spread

(v) the alternative of using slates or tiles would be respectively inappropriate in character or too heavy for the fragile roof structure.

The district council's case

10. The district council point out that they have dealt sympathetically in the past with proposals to locate thatched roofs in close proximity to the boundary, however in this instance the council considers that the individual circumstances relevant to the proposal presents an excessive risk. They make the following points in support of their rejection of your proposals:

- (i) the building is located extremely close to the highway and would be susceptible to ignition from external sources
- (ii) the eaves level of the roof is very low in relation to the ground and road, and a fire in adjacent shrubs and undergrowth could readily transfer to the thatch roof
- (iii) the required fire separation distance for thatch is 20m and this minimum distance is not achieved on three of the four faces of the building
- (iv) the external walls of the property are clad in timber and an external fire could readily spread to the roof and rapidly engulf the building
- (v) the building under consideration is in close proximity to an existing dwelling within the same curtilage which has a thatched roof and timber clad external walls.

The department's view

11. *Table 17 of Approved Document B (Fire safety)* suggests that thatch roofs on dwellings should be located at least 12m from any point on the relevant boundary and this is general guidance which, if followed, will tend to show compliance with Requirement B4 of the Building Regulations. However what needs to be considered is the threat to life safety, if this guidance is not followed, having taken account of the individual circumstances of the case - including the site location and any special fire precautions which are to be incorporated.

12. In this case the department takes the view that there are two main areas of risk with respect to fire spread in terms of Requirement B4. These are the close proximity of the farm out-building to the road boundary and its location with respect to the nearest adjacent thatched building. With respect to the elevation of the farm out-building facing the road, if the relevant boundary is assumed to be along the centre line of the road, then the distance to that boundary varies between 5m and 6m. The Department considers this to be acceptable in this case on the basis that the nearest thatched property on this elevation is on the opposite side of the road at a minimum distance of approximately 15m. If this distance were to be decreased because of future building work then the full width of road would still separate the two properties and the fire precautions proposed for the farm out-building would continue to act as compensatory features.

13. With respect to the elevation facing the nearest adjacent thatched building, the department notes that the buildings are approximately 8m apart and within the same curtilage. The site plan you have provided shows that the two buildings are separated by a common driveway giving access to garages at the rear of the properties. The department accepts that there is only approximately 4m to a notional boundary between the two properties if this is positioned along the centre line of the driveway. However the department considers this to be acceptable in the circumstances after account is taken of your proposed fire precautions as listed in paragraph 14 below.

14. In the circumstances of this case the department considers your proposal to provide a thatch roof to the farm out-building shows compliance with Requirement B4 on the basis of the compensatory features that you propose. The features you propose and which the department has taken into consideration are as follows:

(i) a permanent ridge water drenching pipe, as detailed, with a the stop valve located close to the entrance to the property

(ii) underdrawing of the new thatch roof with construction which will achieve at least 30 minutes fire resistance and which will need to be installed to the satisfaction of the district council

(iii) partial surround of the farm out-building with a masonry wall, as detailed, to help allay the district council's concern over fire spread to the whole building because of the combustible wall and roof.

The determination

15. The Secretary of State has given careful consideration to the particular circumstances of this case and the arguments put forward by both parties. He has concluded, and hereby determines, that your proposal to provide a thatch roof to the farm out-building, combined with the proposals listed in paragraph 14 above, complies with Requirement B4 (Fire Safety - External fire spread) of Schedule 1 to the Building Regulations 1991 (as amended).