



FAO Rachael Simpkin

Senior Planning Officer (Majors & Commercial)
Development Services
High Peak Borough Council and Staffordshire Moorlands District Council
Buxton Town Hall
Market Place
Buxton
SK17 6EL

24.09.2024

Dear Rachel

Re: The Grove Hotel, Buxton

I am writing to you in relation to the proposed redevelopment of The Grove Hotel in Buxton which I understand you have been reviewing from a planning perspective. GWK Structural Solutions Ltd are the appointed structural engineers for the project working on behalf of the client. As part of our overall remit for this project we have been reviewing the structural adequacy of the existing timber floors of the building, and particularly their structural adequacy during a potential fire event.

The fire engineers working on behalf of the client, Orion Fire Engineering Ltd, have advised that in the event of a fire with a duration over 60 minutes long they have calculated that we could expect 50mm of charring to the underside of affected main timber beams which support the floor. This would equate to a loss of approximately 25% of the overall depth to the main timber beams and result in a significant decrease in their structural performance which would ultimately result in failure and lead to partial collapse of the building in the area where the potential fire event was situated.

In order to achieve 60 minutes fire separation we believe that the main timber floor beam require boxing in to provide the necessary fire protection such that their structural capacity is not compromised during a 60 minute fire event. The justification for doing this from a conservation point of view is dealt with by a separate report provided by Heritage Unlimited which I understand will be sent to you separately for your review.

I hope the brief explanation in this letter explains the structural concerns we currently have with the existing timber floors of the building during a 60 minute fire event.

If you have an queries or require any further information please do not hesitate to contact me.

Yours sincerely

On behalf of GWK Structural Solutions Ltd

Gareth Kimber

Gareth Kimber

BEng (Hons) MStructE
Director