



**WHINBARROW DESIGN
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Our Ref: WDS/05/4772/LETT002

9th March 2018

Orchard Brow
Haile
Egremont
Cumbria

For the attention of Mr P Douglas

RE: Structural Inspection & Assessment Orchard Brow Barn Existing Floor Structure.

Dear Sir,

As requested we have inspected and carried out an assessment of the existing first floor structure to the above referenced property and make the following comments:-

1. We understand that it is proposed to convert the lower ground area of the barn in to an self-contained flat with the upper floor being converted to form an extension of the existing farm house.
2. The existing floor structure comprises 120x80 soft wood joists at 400mm lateral centres which span between the barn walls and onto 215x165 soft wood timber beams which span the width of the barn (over 6.0m) and are propped on 110x110 timber posts. The posts are supported off the ground floor flags/slabs and have no suitable foundations.
3. We have assessed the existing floor structure and note that this is not structurally adequate to be retained as part of the proposed conversion scheme. The props to the main floor beams will need removed to allow the conversion to have a suitable unobstructed layout. This will render the main floor beams structurally inadequate.
4. With this we conclude that the existing barn floor structure will need removed and a suitably designed structure constructed which is be suitable to support the expected floor self-weight, imposed load and partition loading from the upper floor level.

I hope you find the above acceptable however should you have any queries please do not hesitate to contact me.

Yours Faithfully



Mr Tom Short B. Eng. (Hons), C. Eng., MICE
For WDS Limited