

**STRUCTURAL INSPECTION OF  
BARNs AT GANNAH FARM  
BOLSTONE, HOLME LACY  
HEREFORDSHIRE, HR2 6NA**

Project Number: S-15-019  
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## 1.0 INTRODUCTION

- 1.1 Gannah Farm is situated in Bolstone, Home Lacy on the outskirts of Hereford. The farm comprises approximately 8 acres and contains many buildings including the farmhouse and barns.
- 1.2 Shire Consulting was appointed by Mr Peter Burke to carry out a structural inspection of two of the barns with a view to converting to holiday lets. The inspection was carried out on Wednesday 6<sup>th</sup> May 2015 and the weather at the time of the inspection was overcast and wet.
- 1.3 The two buildings surveyed as part of this report are the buildings highlighted in red in the plan enclosed in Appendix A.
- 1.4 The barns are in need of general updating throughout. This report covers the more significant structural items only and cosmetic items are not reported upon as it is assumed these will be addressed in the refurbishment of the property.
- 1.5 The inspection comprised a visual inspection only and any areas of structure which are either buried or hidden from view were not inspected and we are therefore unable to report such areas as free from defect.
- 1.6 This report assumes the reader to be stood facing the front elevation of the property and all locations are describes from this position.

**2.0 TWO STOREY STONE BARN**

2.1 The two storey stone store barn is located to the left hand side of the main farmhouse directly adjacent to a steel framed barn.



2.2 The building is constructed in load bearing solid bonded random coursed stonework with a pitched asbestos cement sheeted roof supported on softwood rafters and oak trusses. The first floor is constructed of oak joists spanning between substantial oak beams.

**2.3 Internal Inspection**

2.3.1 The asbestos cement sheeting to the roof has reached the end of its design life and should be taken down and removed to a licenced tip for disposal.

2.3.2 The softwood rafters to the building are generally in good condition with the exception of an area where a rooflight is missing and water has entered the building.



2.3.3 It is likely, as part of the conversion, that the rafters will not be deep enough to accommodate the required depth of insulation, so they may need to be replaced to suit this.

- 2.3.8 The first floor joists are generally in good condition and are suitable to be retained. Floor joists in the local vicinity of the rooflight leak are likely to need to be replaced.



- 2.3.7 The first floor boarding is in poor condition and feels flexible under foot. The boarding is modern softwood and will need to be replaced as part of the refurbishment.



- 2.3.6 The oak truss on the gable end is in very poor condition with extensive decay to the bottom chord, king post and diagonals. Internally the truss top chord has fractured and the roof purlin is no longer in contact with the truss.
- 2.3.5 The internal oak trusses are in good condition and are suitable to be retained.
- 2.3.4 The purlins to the roof are in good condition generally. Adjacent to the missing rooflight a localised repair may be required due to water ingress.



- 2.4.2 The stone steps which provide access to the first floor are heavily worn and are covered in vegetation. It is unclear if these will be re-used in the refurbished building, but will require renovation of the treads if they are due to be retained.
- 2.4.1 The stonework to the external walling is in good condition where it is exposed to view with only minor repointing works required.
- 2.4 External Inspection
- 2.3.10 The ground floor flagstones / concrete flooring is inadequate to be retained and will need to be replaced with a new ground bearing concrete slab.



- 2.3.9 One of the main floor beams has decayed at its junction with the East side wall. A new metal shoe to extend the beam into the wall will be required.



3.0 SINGLE STOREY STONE BARN

3.1 The single storey stone barn is located at the rear of the main farmhouse running parallel to a steel framed barn.



3.2 The building is constructed in load bearing stonework with a pitched pantile roof over. There is a small section of first floor located at the Eastern end of the barn.

3.3 The front elevation of the barn has been infilled with a combination of blockwork and corrugated iron sheeting.

3.4 Internal inspection

3.4.1 At the West end of the barn, the rear roof slope has lost a significant area of tiling and the rafters and purlins have deteriorated due to rainwater ingress. The rafters, purlins and wallplates to this area will need to be replaced.



3.4.5 The existing ground floor comprises a mixture of brick stable blocks, poor quality concrete and earth. The floor will need to be replaced in its entirety.

3.4.4 The stone walls to the building are in an acceptable structural condition. The front elevation comprises of circular stone piers with blockwork and corrugated iron infill panels between. The stone columns have a lean towards the front of the building but are currently stable. The columns will require the infill panels to be retained in any future development to maintain stability.



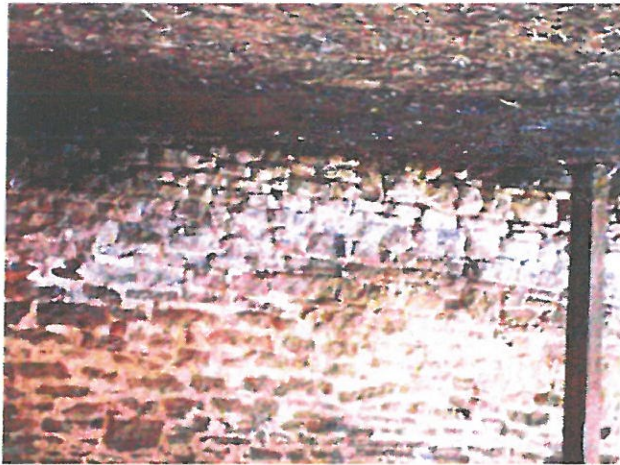
3.4.3 Two of the trusses in the main body of the barn have issues at the bearing of the truss onto the rear stone wall. One is decayed due to water ingress and the second has a natural defect at the point of bearing. The trusses will need to be plated at their bearings.



3.4.2 At the East end of the Barn there is a small section of first floor. Again the roof tiles are missing over a large portion of the floor area and the boards and joists have decayed as a result. Whilst some of the timbers may be able to be reused, this area needs to be dismantled and reconstructed.



3.5.1 The external face of the rear wall to the barn, at its interface with the new steel framed barn, is suffering from deeply recessed pointing and damp. The wall will need to be thoroughly cleaned down and repointed.

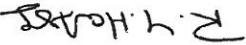


3.5.2 The external finishes to the front of the building comprise grass and bare earth. New finishes will need to be provided as part of the development.



## 4.0 CONCLUSIONS & RECOMMENDATIONS

- 4.1 The existing two storey stone barn is generally in a good structural condition with only relatively minor defects noted. Some timberwork will need to be replaced due to rainwater ingress, but the barn can be converted to domestic use without substantial rebuilding.
- 4.2 For details of the structural items to be addressed to the two storey stone barn, refer to section 2.0 of this report
- 4.3 The existing single storey barn is generally in a fair structural condition. There are a number of structural issues which need to be addressed, but these can be done without substantial rebuilding of the building.
- 4.4 For details of the structural items to be addressed to the single storey stone barn, refer to section 3.0 of this report

Signed: 

R Y Hartshorne BSC (HONS) CEng MISTRUCTE AMICE

Date: 14/07/15