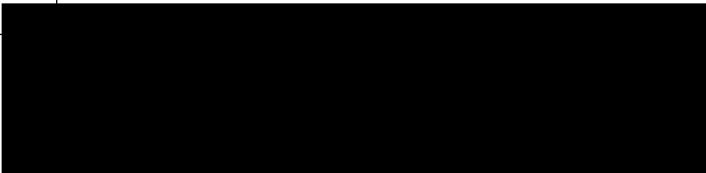




PHILIP WRIGHT
ASSOCIATES

**STRUCTURAL APPRAISAL
OF
BARN,
EVESONS FARM,
SIMONSTONE LANE,
SIMONSTONE**

CONTRACT NO. 2998	PHILIP WRIGHT ASSOCIATES LTD 21 UNION STREET RAMSBOTTOM BURY BL0 9AN
MAY 2023	

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1.0 INSTRUCTION

I would confirm having attended the above property and have carried out a visual inspection as instructed.

The scope of my brief was to inspect and report upon the general structural condition of the agricultural barn to determine its suitability or otherwise for conversion to habitable accommodation.

It was not within the scope of my brief to prepare a detailed schedule/specification of remedial works nor to supervise any such works. I did not have the opportunity to monitor the condition of the property over a period of time. It was not within my brief to undertake any works to expose the foundations of the property.

This report deals essentially with the structural aspects of the property. It is not a Building Surveyors report which would cover in detail such items as serviceability, damp proof course, gutters, roof finishes, electrical goods and the like which represent the fabric of the building.

I have not inspected woodwork or any part of the structure which is inaccessible therefore I cannot report that such part is free from defect. The property has decayed or insect infestation, it would be prudent that a timber preservation specialist is commissioned to advise on the condition of any timbers which would be considered as being retained.

I have not checked member sizes for compliance with the Building Regulations 2000 or Codes of Practice.

2.0 THE PROPERTY

The property is a substantial detached agricultural barn which incorporates a part hay loft floor to the left hand side and front part of the right hand side. The barn is constructed in a traditional manner with solid stone external walls and a duo pitched ridged roof with stone tiles supported on a supporting timber framework of timber rafters supported on exposed timber purlins on substantial queen post trusses. The hay loft floor is of timber board and joist with the barn having a solid stone/concrete ground floor construction. To the rear is a lean-to shippen with stone tiled roof to align with the main roof, the shippen having rendered brick walls.

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3.0 OBSERVATIONS

3.1 EXTERNAL OBSERVATIONS

The terms front, rear, left and right are as facing the property, the front elevation facing the access road with the right hand gable facing Simonstone Lane.

3.1.1 FRONT ELEVATION

The front elevation incorporates the main arched opening towards the middle of the elevation together with one window towards the left hand side and one infilled window to the left hand corner and a first floor window, together with two windows and door to the right hand side of the arched opening.

To the left hand side of the arched opening the wall was noted to be plumb to approximate mid height and then had an inward lean towards the rear by approximately 50mm. To the right hand side of the arch, the wall was noted to be reasonably plumb within acceptable tolerance however, approximately the top 1m was noted to lean inwards but was considered to be within acceptable tolerance. The general condition of the wall was in a fair and reasonable condition with the pointing being in reasonable condition except for some open joints below the first floor window with cracking evident being under 2mm, to the top right hand corner of the left hand window running up to the first floor window. Cracking to the top left hand corner of the left hand infilled window was also evident running up towards the left and back to the right to the cill of the first floor window.

3.1.2 LEFT HAND ELEVATION

The left hand gable incorporates the side wall to the lean-to to the rear being rendered. The elevation incorporates three ground floor windows and a door, together with a square opening towards the middle of the wall at high level. The head to the square window was noted to have a fracture to the stone head. A vertical crack was evident approximately 600-700mm from the front wall running from the eaves down to approximately 2.5m from ground floor, the crack being approximately 20-25mm at eaves running down to hairline. Vertical cracking/cracking in the stone head to the door was noted. The alignment of the wall was noted to undulate but was generally considered to be within acceptable tolerance however, the pike was noted to have an inward lean of approximately 50-75mm.

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3.1.3 REAR ELEVATION

The rear elevation incorporates the lean-to shippen to the rear of the property, which projects further to the rear to the left hand side of the arch, the wall incorporating rendered brickwork. The shippen does not run across the arched opening to the rear. The left hand part of the elevation incorporates two windows. Vertical cracking was evident to the top left hand corner of the left hand window; to the bottom left hand corner of the left hand window; to the top right hand corner of the left hand window; to the top right hand corner of the top corner of the right hand window. Cracking was also evident beneath the cill of both windows. Loose render and crazed cracking was also evident to the bottom right hand side. The alignment of the wall was noted to be within acceptable tolerance.

To the right hand side of the shippen, no access was afforded due to the extent of vegetation. The elevation incorporates a door towards the middle and to the right hand corner, together with two windows. A previous double door was evident towards the middle which had been part infilled. Cracking was evident to the bottom left hand corner of the left hand window and to the top right hand corner of the same window. Crazed cracking was evident to the left hand corner. The roof to the shippen had collapsed in its entirety and the parapet stones to the right hand wall were also loose and de-bonded.

To the left hand return wall of the right hand part of the shippen, a slot within the render was evident over the door.

The right hand return wall to the left hand shippen incorporates two windows. Loose render was evident over the far window and a horizontal crack was evident in the render of approximately 1mm between the head of the windows. Cracking in the render was also evident to the rear corner and in line of the cill to the far window running to the far window. Cracking in the render from the cill of the far window running down to the ground was also evident.

3.1.4 RIGHT HAND ELEVATION

No access was afforded to the right hand elevation as a result of the vegetation. The ground to the elevation is raised relative to the front track which is supported by a stone retaining wall. The elevation incorporates windows towards the front and the middle. Lateral visual distortion was evident for the full length of the gable together with the stonework being laterally displaced adjacent to the far window for approximately half the height. The wall was noted to lean inwards to the pike being visually assessed by approximately 75mm.

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3.2 INTERNAL OBSERVATIONS

The left hand side of the barn incorporates a hay loft floor with the timber joists supported on five internal beams which are concrete encased. The floor incorporates numerous holes which have decayed as a result of water ingress from the roof. Vertical cracking to the far side of the near window was evident to the left hand wall.

To the shippen, the central timber truss was supported on a concrete beam, the timber ceiling joists were noted to have decayed against the near wall with large voids evident between the timber and the wall.

To the right hand side of the barn to the main accommodation is open towards the rear, the front part incorporates a small hay loft floor divided with a brick wall from the main barn. The hay loft floor incorporating three timber beams running front to rear. Damp ingress was evident to the rear wall for the full height and also to the rear right hand corner. A bulge and lateral distortion to the right hand wall was evident above the hay loft floor.

The middle portion of the barn incorporates two main flank walls with access from the front to the rear arch. The corners of the flank walls have been rebuilt in the past with solid blockwork which supports the queen post trusses.

3.3 ROOF

The roof incorporates four purlins per slope which is supported on two large queen post trusses to the left and right hand sides and two smaller queen post trusses towards the middle built off the block walls to the flank walls. The roof appeared to have been reconstructed considered, perhaps 30-50 year ago. A small number of gaps within the stone tiles was evident which has caused water ingress with water staining to the bottom and third purlins to the rear slope towards the right hand side and all the purlins to the rear slope to the second bay from the right hand side being affected. Further decay to the purlins was evident to the second bay from the left hand side and to the far left hand side.

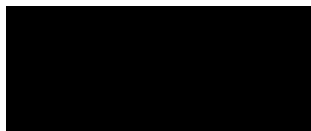
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4.0 SUMMARY AND RECOMMENDATIONS

In conclusion from the findings from my visual inspection, I would advise that the barn has suffered from some long-standing lateral distortion but with some remedial works will be suitable for conversion to habitable accommodation. As part of the refurbishment works it would be considered that a complete new first floor would be required together with new ground floor construction to meet current Building Regulations.

The summary of the extent of remedial works required are as follows: -

- The roof would be required to be inspected by a specialist timber preservation company however, it was noted that a number of purlins have wet rot decay and would be required to be replaced. An inspection of the main four queen post trusses would be required to be undertaken.
- Lateral distortion to the front left hand corner was evident with vertical fracturing to the left hand gable and front elevation which would be required for the cracks to be locally rebuilt.
- The head to the openings to the door and upper opening are required to be replaced.
- The right hand gable incorporates lateral distortion and vertical fracturing which require the section of wall to the crack to be locally taken down and rebuilt in order to obtain a suitable alignment.
- The roof to both sides of the shippen will be required to be replaced in their entirety.
- The render to the shippen is required to be totally replaced.
- The rear wall to the right hand side has extensive damp penetration which will require to be fully addressed which may require some of the wall to be partially rebuilt.



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