

FAIRCLOUGH
CONSULTING STRUCTURAL ENGINEERS
The Old Stables, Potts Lane, Ollerton, Cheshire. WA16 8SF
Tel: 01565 656779

STRUCTURAL ENGINEERS INSPECTION REPORT

of

BARN AT OLD ENGINE FARM, DILHORNE, STAFFORDSHIRE. ST10 2PX

26 November 2020



Report No: 201113B

INTRODUCTION

INSTRUCTIONS

1. Property to be inspected : Barn at Old Engine Farm
Dilhorne
Staffordshire
ST10 2PX
2. Client : Mr & Mrs Wheat
Old Engine Farm
Dilhorne
Staffordshire
ST10 2PX
3. We have been instructed to :

Inspect and report on the structural load bearing elements of the property.
4. The report is required for planning purposes.
5. The property was inspected on the 17th November 2020.

EXTENT AND LIMITATIONS OF THE SURVEY & REPORT

6. This inspection report is limited in its scope to the instructions as noted above. We have not inspected parts of the property or defects that are not relevant to the instructions unless noted in this report. Our inspection was a visual inspection internally and externally as necessary subject to safe and reasonable access being available. We shall only report upon those structural defects that materially affect the stability of the property and provided that these defects are reasonably detectable at the time of our inspection. Whilst we will use all reasonable skill and care in preparing this report, it should be appreciated that we cannot offer any guarantee that the property will be free from future defects or that existing defects will not become worse. Internal inspection is made within the limits of ready accessibility and it is not normal practice to lift floor coverings or floor boards, remove panels or plaster, or move heavier items of furniture. We have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect. Such unexposed parts may contain problems and you would need to make special arrangements for these areas to be investigated if you require confirmation about their condition.

7. We are not qualified to comment upon: drainage, electrical systems, water systems, heating systems, gas and electrical systems, condition/rot/insect infestation/fungal infestation of timber, damp penetration, mechanical installations, decorative condition, mouldings, coverings, and all other non-structural matters. If we happen to notice any problems in these areas which we recognise we will draw this to your attention, however you should not assume that the absence of any such comments means that the property is free from defect in these areas.
8. This report has been prepared for the named client and for a particular purpose. Any liability, which may arise, is therefore restricted to the client and the client's professional advisers in relation to that stated purpose.

ORIENTATION

9. For the purpose of this report, unless otherwise stated, the front elevation is that which faces the public road or path from which access to the property is given and all references to left and right are given as if viewing the property from the front.

DESCRIPTION OF THE PROPERTY

10. The property consists of a traditionally constructed agricultural barn with brick elevations and a pitched roof. A significant part of the roof and the left hand side elevation have collapsed. The barn appears to be at least 80 years old.
11. No details were available of any structural problems that may have occurred, nor of any structural repairs or structural alterations that may have been made to the property or to neighbouring properties except as noted in this report.

EXTERNAL OBSERVATIONS

ROOF

12. The left hand part of the roof, approximately one third of the total area, has collapsed. The remaining parts are covered with corrugated sheeting. The parts that remain are not excessively deflected.

ELEVATIONS

13. The elevations were visually inspected from ground level. The elevations are formed from solid brickwork. Horizontal lines are level within the tolerances normally expected. The left hand elevation is no longer present. The remaining elevations are plumb within the normal tolerances. There are no indications of roof/eaves spread. Except as noted in the following paragraph there are no structurally

significant cracks, gaps, or other indications of recent structurally significant movement.

14. There is a significant and mainly vertical crack on the right hand side elevation. This crack extends from ground level to eaves level. The crack has rounded and weathered edges indicating that it is old.
15. Most of the rear elevation appears to have been underpinned.

INTERNAL OBSERVATIONS

ROOF STRUCTURE

16. The roof structure consists of a combination of steel beams, timber beams, and timber purlins. The roof structure is not excessively deflected but the steel elements are suffering from corrosion and some of the timber elements appear to be in a poor condition. A full inspection of the roof structure was not possible because of safety considerations.

WALLS

17. A close inspection of the internal wall surfaces was not possible because of safety considerations but there were no obvious signs of major defect.
18. The upper part of the internal wall which now forms the left hand elevation of the enclosed part of the building is somewhat distorted at high level.

BARN FLOOR

20. The barn floor is a typical agricultural floor and will not incorporate either insulation or a damp proof course.

CONCLUSIONS & RECOMMENDATIONS

21. The entire left hand elevation of the barn is now missing. I have no knowledge of the history of the barn but it appears likely that this elevation collapsed and that is the reason why a significant proportion of the roof is now also missing. The remaining elevations are relatively plumb and undistorted and would appear to be suitable for a conversion. The rear elevations appear to have been underpinned and it is possible that the remaining elevations will also require underpinning as part of any conversion works. Both the underpinned elevations and the non underpinned elevations should be investigated further with trial holes etc., at the detailed design/building regulation stage.
22. The remaining parts of the roof structure are fairly basic and are highly unlikely to be able to support the increased loads from a conversion to habitable use. I anticipate that the entire roof structure will have to be replaced with new.
23. The barn floor will have to be replaced with a new floor incorporating underfloor insulation and a damp proof membrane to current building regulation standards.
24. The upper part of the left hand side wall which now forms the left hand elevation of the enclosed part of the barn is somewhat distorted at high level. Some localised rebuilding will be required.
25. Subject to the detailed comments in the paragraphs above the remaining parts of this barn are structurally stable and suitable for conversion to habitable use without extensive further demolition or rebuilding.

D Fairclough

D.Fairclough BSc, MBA, CEng, MICE, MStructE, MInstRE
For Fairclough & Co Ltd

