

IGN Structures

Barn Survey & Structural Assessment

Knypersley Hill Farm, Lodge Barn Road, Knypersley

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1.0 Introduction

- 1.1 IGN Structures received instructed to undertake a visual inspection of a barn at Knypersley Hill Farm, Knypersley. It is proposed that the existing structure be renovated for conversion into a residential / habitable use. We are instructed to report upon the structural condition of the barn and advise upon its suitability for conversion.

The survey was carried out on the 28th of April 2025 and comprised a visual, non-intrusive inspection.

- 1.2 We have not inspected woodwork or any other areas of the structure that are covered, unexposed or otherwise inaccessible. We are therefore unable to confirm that any such areas of the building are free from defect. Given the nature of the structure, however, this has not precluded a comprehensive assessment of its structural condition and suitability for conversion. It is important to note that this report does not constitute a comprehensive Building Survey, neither does it constitute a full Structural Survey. This is a report generated from a visual inspection of the premises in response to a specific matter for consideration and no invasive investigations or opening up has been undertaken nor is deemed necessary.
- 1.3 All quoted dimensions and sections sizes are approximate unless specifically noted and should not be relied upon.

2.0 Site Location

2.1 The barn is located on Lodge Barn Road, Knypersley, Stoke-on-Trent (as shown below).



3.0 Description

3.1 The barn under consideration is currently used as an annex following some renovation works.

3.2 The barn is a rectangular masonry structure supporting a duo pitched roof.

3.3 The barn has a width of circa 4.5m and a length of circa 6.5m. It is approximately 3.75m high to eaves wall plate level and 5.5m high to ridge.

3.4 The barn roof has a tiled finish and is supported via timber rafters / a timber purlin which spanned between the gable walls.

3.5 The first floor to the barn was formed via timber joists which appeared to span between the flank walls.

3.6 The perimeter walls to the barn are formed via circa 500mm thick masonry. No dominant openings are present on these elevations.

3.7 The barn floor consists of a traditional concrete ground bearing slab.

3.8 The foundations are likely to comprise shallow mass concrete strip footings which, given the age of the building are likely to bear at a depth of around 450mm below the existing ground level.

- 3.9 Photographs of the barn and its surroundings are included as Appendix A.

4.0 Observations

- 4.1 The barn appeared to be in a good state of repair.
- 4.2 The roof presents satisfactory alignment with no evidence of significant deflection or distortion noted. Rainwater goods were noted and were in good working order.
- 4.3 The first floor appeared to be in good condition and no signs of structural distress was noted.
- 4.5 No signs of major cracking associated with settlement / subsidence was noted in any of the external perimeter masonry walls.
- 4.6 The floor slab presents in a generally good condition, being robustly formed and free from significant cracking or hollowing soundings.

5.0 Conclusion

- 5.1 On the basis of our inspection, we are satisfied that the barn represents a viable proposition for conversion without the need for structural intervention.
- 5.2 The floor slab appears in a sound condition and will be subject to a significant reduction in imposed load within a residential dwelling. The existing floor slab should therefore be suitable to form a sound base from which to raise partitions and install insulation and floor finishes appropriate to a domestic floor.
- 5.3 The existing foundations appear generally suitable to sustain the loadings currently imposed by the structure, with no evidence to suggest significant past foundation settlement.
- 5.4 The exiting roof structure is generally performing satisfactorily, and no noticeable signs of structural distress was noted.
- 5.5 In summary, the overall condition of the barn structure, together with its overall performance to date, lead us to believe there is no substantive reason why it cannot be successfully converted to residential use without recourse to structural intervention.
- 5.6 With this in mind, we consider the existing building described herein is in principle structurally strong enough to sustain the loadings from the building operations reasonably necessary to facilitate its conversion to residential use.

Appendix A

