

## ***Hill End Farm, Mapplewell***



### ***Structural survey of existing farm building***

MP Consulting Engineers (UK) Ltd

Job Number: MP8312

June 2026 Issue 1

|                          |                                              |
|--------------------------|----------------------------------------------|
| <b>Name of Project</b>   | Hill End Farm, Mapplewell, Barnsley, S75 6DU |
| <b>Name of Structure</b> | Building 1                                   |
| <b>Structure Ref No</b>  | S001                                         |

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## Document Control Sheet Issue Record

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|             |            |                |                                                                                     |
|-------------|------------|----------------|-------------------------------------------------------------------------------------|
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|             | Job Title: | Director       |                                                                                     |
|             | Date:      | 12.06.26       |                                                                                     |

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|         | Job Title: | Director       |                                                                                      |
|         | Date:      | 12.06.26       |                                                                                      |

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## 1.0 Introduction

|                            |                                                                                                                                                                                                                                  |
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| <b>Date of Review:</b>     | Wednesday 6 <sup>th</sup> May '26                                                                                                                                                                                                |
| <b>Property Address:</b>   | Hill End Farm, Mapplewell, Barnsley, S75 6DU                                                                                                                                                                                     |
| <b>Weather Conditions:</b> | Dry, overcast, circa 16 degrees.                                                                                                                                                                                                 |
| <b>Reason for survey:</b>  | MP Consulting Engineers was requested to carry out a structural survey and review of the existing primary structure of the building. The client wishes to explore the feasibility of converting the building to residential use. |

### Extent of structural survey:

A Chartered Structural Engineer has visited site and inspected the structure where safe access allowed, the report assess the structural condition of the existing building referenced. No reference to drainage and other site services is made or can be inferred within this report. The survey is intended to advise on the suitability of the primary structure for conversion to residential use, taking into account existing or historical movement/cracking/settlement or other defects.

### Experience profile:

Formed in 2004, MP Consulting Engineers provide civil and structural engineering services to a wide range of clients in the construction and property industry.

Site evaluation, pre-planning feasibility, implementation of in house & specialist surveys

Site enabling works, Civils Infrastructure, ground modelling.

Foundations, sub-structure & drainage design including attenuation & SUDS systems.

Renovation, refurbishment of existing buildings and bespoke new build developments.

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Stephen Parker is a Director of the company and has worked on the design and detailing of building structures for 25 years, providing cost effective and pragmatic solutions to existing structures, both large and small.

## 2.0 Description of existing structure

The site is positioned on the outskirts of the village of Mapplewell, part of the Barnsley metropolitan borough, access to the site is via an unmade track off Hill End Road.

The building has previously been used for agricultural purposes with evidence of storage of straw, animal shelter and material/equipment stores.

The primary plot essentially consists of two connected buildings with an older stone built duopitch roofed two storey barn with a later lean to with a shallow mono-pitch roof connected to the east elevation.

A second smaller lean to exists to the south elevation, again a later addition to the original barn.

## 3.0 Structural review

A walkover review was undertaken to all accessible areas during the survey, this included within the footprint of the building and the enclosed stable to the south end of the building.

The following was noted during the walkover survey

- Roof finish of original barn is a traditional yorkstone tile, supported by timber battens, rafters and purlins sat onto kingpost trusses spanning clear between masonry walls. Evidence of historical deflection of the roof timbers with ridge line dipping between points of support, to be expected for a heavy stone tiles roof of this age. Timbers appear in good condition with no significant signs of moisture ingress or infestation, sizes in the expected range for a building of this type. Clearly some repairs and maintenance would be needed as part of any refurbishment, but the roof structure is generally suitable for reuse.
- Roofs to both lean-to elements consist of corrugated steel sheeting supported by a light gauge steel arrangement. Although currently in use, these would likely be replaced to ensure a suitably insulated and visually acceptable structure is provided.

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- Verges are pointed with tiles extending over walls, no gable copings/kneelers exist.
- Part first floor structure formed from timber boards and joists sitting onto steel beams spanning wall to wall. Levels may dictate the flooring being replaced to suit the proposed refurbishment however the building is capable of supporting a new timber first floor throughout. Indeed, a new floor diaphragm would serve to further enhance the structural stability of the building in the long term.
- Part yorkstone and part concrete ground bearing floor slab, no sign of any settlement or movement to the floor. Replacement of the floor with a modern insulated build up could be undertaken without detriment to the structure.
- All external walls constructed in the same manner with coursed Yorkshire stone outer leaf, rubble filled cavity with roughstone inner. Several repairs noted to the inner leaf using stone or brick infill. Stone quoins to main corners of both the barn and the lean to structure. Walls circa 500mm total thickness.
- Walls typically plumb with no significant signs of bowing or settlement. Stone lintels provided to external leaf (with some having steel replacements) with timber members supporting inner leaf. Lintel over main barn door has been replaced, a crack adjacent suggests the original may have failed over time.
- Other than notes above the walls are free from significant defect, corners remain well tied, stone remains well bonded via a lime mortar which is generally intact.

### 4.0 Summary:

The building is in a generally good condition with no significant structural defects visible during the walkover survey. The existing structural elements are substantial and would be suitable for a variety of uses including residential.

Conversion to residential use would require a thorough refurbishment of the existing building envelope to bring it up to a suitable condition.

It would however be achievable and within suitable economical limits to do so. The provision of new insulated floor slabs, wall linings and insulated roof systems can essentially provide a modern building envelope, leaving the existing structure intact albeit subject to a remedial repair scheme to ensure longevity in line with the design life of the building.

To conclude, the building is capable of conversion to residential use, this is subject to the necessary consents and the careful design and detailing of a package of refurbishment.

## 5.0 Site Photos



**Photo 1:** Typical view on underside of roof structure



**Photo 2:** Truss bearing onto external stone wall

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**Photo 3:** view on part first floor



**Photo 4:** Underside of first floor and concrete ground floor structure

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**Photo 5:** View on internal section of lean to



**Photo 6:** View on main barn elevation, purlin over main door replaced with steel

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**Photo 7:** Typical support arrangement around doors/windows



**Photo 8:** Internal timber lintel



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