

Woodhouse Farm : Barn and Coal Store– Structural Appraisal

Project No: 3380

Date: May 2025



STRUCTURAL APPRAISAL REPORT BARN & COAL STORE CONVERSION

**Woodhouse Farm,
Sands Lane,
Brown Edge,
ST8 6EG.**

for

Mr Wright



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Woodhouse Farm : Barn and Coal Store– Structural Appraisal

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1.0 INTRODUCTION

REPlan and Design Ltd were asked to visit Woodhouse Farm, to assess the suitability of converting the barn and coal store into living accommodation, adjoining the existing house.

This report is to assess the current structural condition of the barn and coal store and the suitability to convert.

Inspection carried out April 2025.

Included in Appendix A of the report are REPlan and Design's Standard Scope and Limitations of Survey.

Included in Appendix B of the report are annotated relevant photographs taken at the time of the inspection.

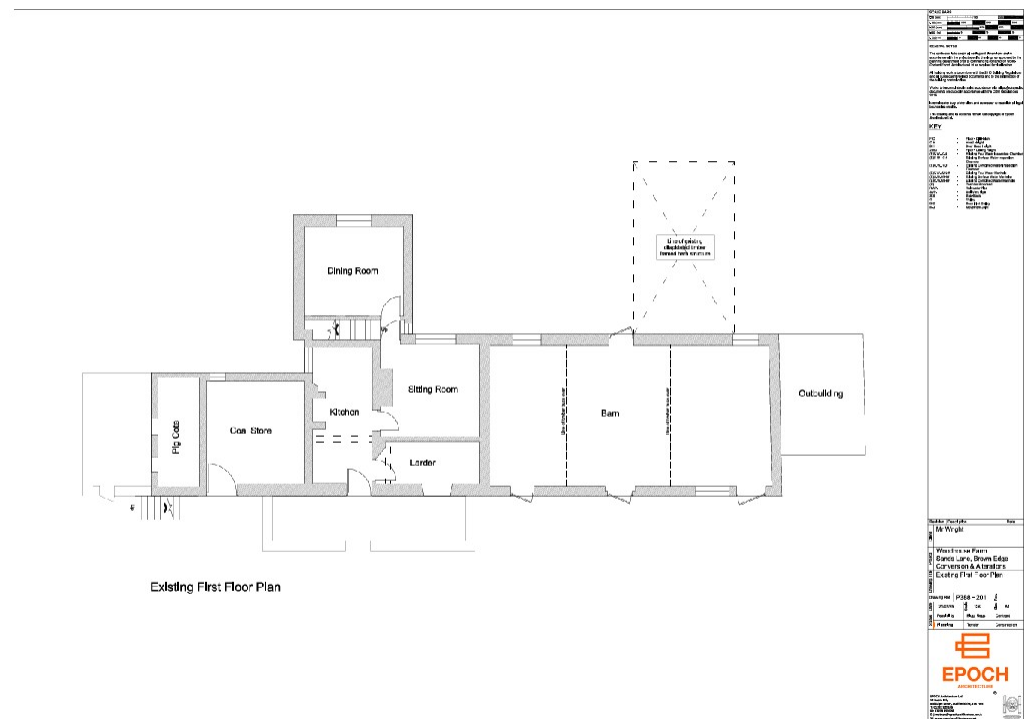
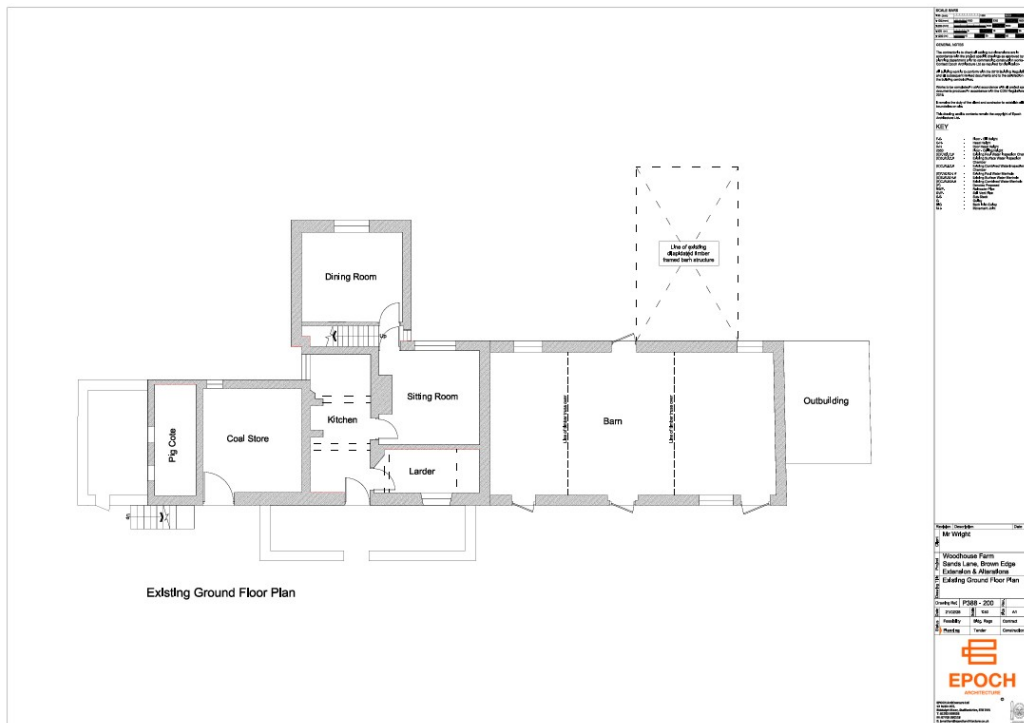


Image 1 – Google Maps (Location)
Red circle : Existing Barn
Orange circle : Existing Coal Store
Section between is the existing dwelling

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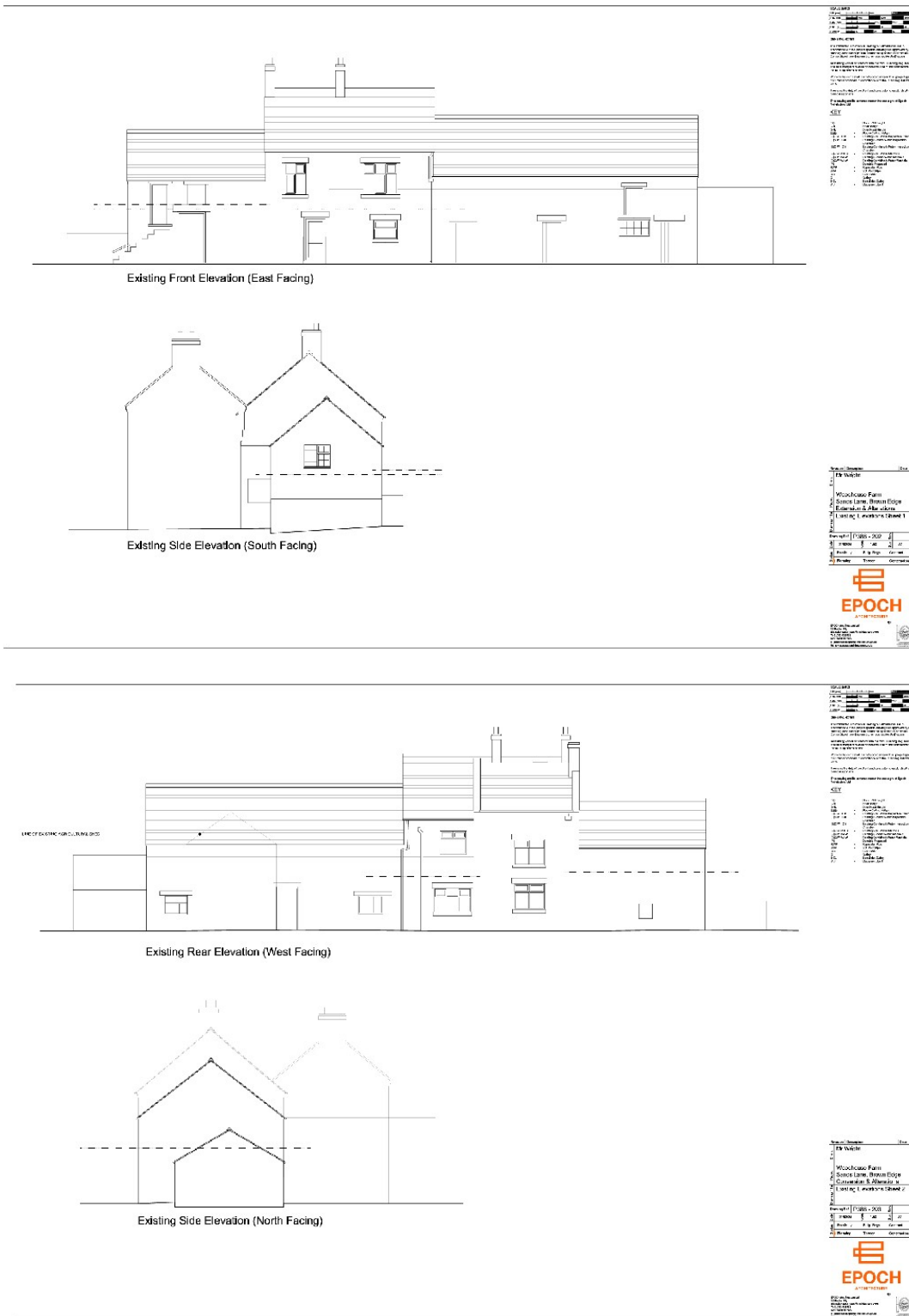


Image 2: Existing Building (EPOCH Architectural)

2.0 BRIEF DESCRIPTION OF THE PROPERTY

Coal Store

Adjoining the existing house, to the left, is the coal store.

The coal store is a stone and brick built building with a gable end and a duo pitched tiled roof. The lower level of the store appears original and built from stone, a later 1st floor has then been added over, built from brickwork. The gable end had a rendered finish.

The ground floor is an open room store, with adjoining pig-cote accessed externally. The 1st floor store over is accessed from the external stairs to the front elevation via a door which then steps up again internally to the single 1st floor store room.

A trial hole was dug at the rear of the coal store.

This indicated the wall which had larger foundation stones at the base level (same wall width) but stopped approx. 200-300mm below ground level.

No spreader foundation is present to the a store where exposed.

The rear ground level is lower than the front ground level.

The rear of the barn is a grassed field that is relatively level.

The front of the barn is a stoned drive / pathway which is also relatively level.

The side is enclosed by a stone wall / slightly retaining.

Barn

Adjoining the existing house, to the right, is the barn.

The barn is a stone built structure with a gable end and a duo pitched tiled roof.

The barn has been raised slightly at some point in the past, with 5 courses of brickwork built over the stonework that the roof is then supported from.

The barn is 1 ½ storeys high but is only one open room internally.

A smaller stoned store is present to the side of the barn.

A trial hole was dug at the rear of the barn.

This indicated the wall which had larger foundation stones at the base level (same wall width) but stopped just below ground level.

No spreader foundation is present to the barn where exposed.

The rear of the barn is a grassed field that is relatively level.

The front and side of the barn is a stoned drive / pathway which is also relatively level.

3.0 OBSERVATIONS

Coal Store

External:

The front wall is a mixture of stonework and brickwork, with the 450mm wide stonework appearing original and built upto 1st floor level. A solid 225mm brickwork is then present over. A brick wall with concrete steps are present externally from the front left corner. A door is present at ground floor just beyond the steps giving access into the ground floor level of the store. A stone lintel is present over. A door is present at ½ height off the external steps giving access into the upper section of the store, it appears no lintel is present over as this runs flush with the roof. A boarded up window opening is present directly over the ground floor door with a stone lintel over.

The rear elevations is the same as the front with original 450mm wide stonework upto 1st floor then 225mm brickwork over. A small window is present to the ground floor with a stone lintel over. A sperate door opening has been stoned up.

The side gable wall is seen as stonework from the lower level upto approx 1.0m above the front ground floor level, this elevation then has a rendered finish with a single window within the 1st floor area.

The stone / brickwork on all sides appears in good condition with no structural cracks of concerns.

The roof has a tiled finish with gutters running the length of the front and rear elevation. The roof appears true without any major sagging or hogging.

Internal:

Within the ground floor of the store, a rougher finish stonework is present on all sides, but in a relatively good condition.

The store is partly filled with coal so wasn't fully accessible.

A window is present on the rear elevation with a timber lintel (inner) present over.

A timber lintel (inner) is also present over the door on the front elevation.

A stone floor is present to the store that is at the same level as the external level along the front.

The 1st floor store area accessed from the external stairs is set lower over the pig-cote and then steps up over the coal store. Timber floor joists are present spanning front to back.

Brickwork is present on the front, rear and gable side with the section to the main house being original stonework.

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The roof has timber rafters, with 1 number timber purlin along each slope, The purlin runs between the gable walls and has a timber prop off the wall between the pig cote and coal store (the prop will need to be replaced). Main roof timber work in a relatively good condition.

A wall plate is present on the inner wall section at the front and on the outer wall section on the rear. A small timber lintel is present over the door and window.

A horizontal crack is present in the masonry over the pig-cote but no major structural concerns noted.

Barn

External:

The front wall is original stonework with 5 courses of brickwork added over at the top.

3 Doors are present along the front elevation all with larger stone lintels over, a single window is present close to the 3rd door which has a timber lintel over.

2 windows and 1 door are located in the rear elevation all with stone lintels over.

The side gable wall has no opening and is adjoining by the stonework for the outbuilding store.

The stone / brickwork on all sides appears in good condition with no structural cracks of concerns.

The roof has a tiled finish with gutters running the length of the front and rear elevation. The roof appears true without any major sagging or hogging.

Internal:

All elevations show a rougher finish stonework is present, but in a relatively good condition.

The barn is one open space with 3 doors and 1 window located on the front elevation with timber lintels (internally) present over. A crack in the stonework is present at low level between the small section of masonry between the door and window.

2 windows and 1 door are present along the rear elevation with timber lintels (internally) present over. Both gables' walls are stonework, the external gable is in a good condition, 2 small cracks are present in the corners of the main house stonework but not currently of a structural concern.

The walls are currently relatively straight and plum but are long sections without any buttressing. Any future development should consider incorporating buttress piers / posts into the layout.

The roof is formed with timber rafters, spanning from the ridge to the front and rear walls with 2No timber purlins along each slope. The purlins run from the gable walls onto 2No

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king posts trusses splitting the purlin span into 3. The end bay of purlins (closest the existing house) have some sections missing and should be monitored for any future deterioration or deflection in the roof. The other roof members are in a relatively good condition for the age and are not of a structural concern.

A concrete ground floor slab has been cast internally within the barn that is set in from the walls by 100mm.

General Comments

The barn and coal store in their current condition are structurally sound and don't need any major structural repair works based on their current form / use. A couple of the timber purlins would need repairing / replacing in the near future but should just be monitored at present.

The walls, although a mixture of materials and construction types are structurally sound.

The stone floor, which is not an integral part of the structure, would not meet modern standards, this would require insulation and a dpm. In the main barn a concrete slab is present which is believed to have a dpm below, this will need upgrading to meet current standards and insulation added. These individual elements will need to be taken out or upgraded.

Foundations were exposed in two locations, and relied on spreaders and walls only taken into a shallow ground depth. However, having said that the store and barn don't show any signs of any ground movement / foundation problems based on the current load and use.

Underpinning may be required where additional loads are added, or where any dig depth is required for a new ground floor construction, but these could be carefully designed to avoid any excessive or unnecessary works to the existing structure.

4.0 CONCLUSIONS

The barn and store are of a suitable condition for conversion and would give the ideal time to undertake improvements and modifications to bring the building up to a condition to satisfy current building regulations standards.

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APPENDIX A**REPlanAndDesign STANDARD SCOPE AND LIMITATIONS OF SURVEY****SCOPE AND LIMITATIONS OF SURVEY**

This report has been prepared to provide guidance on the structural elements to the property only.

The report is based on a visual inspection of those areas of the property that were readily accessible at the time of the inspection. As such, comments cannot be made on those parts of the building that were inaccessible or hidden from view.

The report does not provide a checklist for improvements that might be desirable.

We have not inspected parts of the structure which were unexposed or inaccessible. We are therefore unable to report that such parts of the property are free from defect.

This report is for the private and confidential use of the client for whom it is prepared.

Project Title	Woodhouse Farm : Coal Store and Barn	Project Ref.	3380-001
Report Prepared by			
	Shaun Rigby BSc(Hons) MIET		

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APPENDIX B

PHOTOGRAPHS



Photo 1– Trial Hole



Photo 2– Coal Store : Front and Side View

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Photo 3 & 4– Coal Store (Ground floor / 1st floor)



Photo 6– Barn : front elevation



Photo 7– Barn : Internal