STRUCTURAL APPRAISAL REPORT

Ivy House Farm
Chapel Road
Pilley
Barnsley

On behalf of: Mr G Ulloytt

Freeman Design & Surveying Consultancy Ltd.

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LIMITATIONS OF REPORT

This report has been prepared to give a general structural appraisal of the main fabric of the building, i.e. walls and/or floors and/or roof, and will relate specifically to the part of the structure, as defined in the Client's Brief/Scope of Report.

This report should not be read as that which represents a full structural survey. We have not exposed foundations or substructure walls, tested services, or examined areas of the structure which were concealed from view at the time of our inspection. If the property was occupied and fully furnished at the time of our inspection, then it is likely that some of the wall and floor surfaces were concealed. We must point out that we are unable to comment specifically on areas which we have not been able to examine and you must accept the risks that hidden defects may exist.

This report will not comment upon the condition of secondary components, i.e. interior or exterior joinery, fixtures and fittings and the like, and you are advised to have these checked separately.

Unless otherwise stated, we have not made any enquiries into the geological particulars of the site; however, comments may have been made on the Geological Survey Maps of the area if reference is appropriate to the specific defects reported.

BRIEF COMMENTS ON STRUCTURAL MOVEMENT

All buildings move to some extent. The nature and severity of this movement depends upon many factors which include the type and composition of the materials used in construction, ground conditions, design, and influence of external elements. Structural defects are normally those which are likely to affect the stability of the property and are usually associated with inadequacies of construction, poor ground conditions, or changes in the surrounding environment. During, and shortly after construction, a building will settle onto its foundations as a result of the ground beneath consolidating under the weight of the structure. This movement will generally cease shortly after construction is complete and is termed as "initial settlement". Occasionally ground conditions may change due to natural or man-made circumstances and parts of the structure may move relative to each other. This is broadly termed "differential settlement". Movement will cease when the opposing forces are in a state of equilibrium.

Movement to buildings becomes evident by fractures to walls and linings and distortion of the structure. This often occurs over a very long period of time and the only positive method of checking if damage is progressive is to monitor the movement for a period of several months.

We must point out that our survey is a general appraisal on the basis of a single inspection and, whilst every attempt will be made to identify the source of a particular problem, occasionally we are unable to predict future events without further investigations or continued monitoring. Our assessment is based on the facts presented to us at the time of our inspection.

FURTHER CLARIFICATION

It is inevitable that some technical terms may be used throughout the report, however, these will be kept to an absolute minimum and will be explained wherever possible. Should you have any queries on the content of our report, or require additional clarification, then please do not hesitate to contact us. Where there are any parts of the structure which we have not been able to examine, then we should be pleased to re-inspect those parts when they are exposed and upon your further instructions.

RECOMMENDED REMEDIAL WORKS

As part of our appraisal we may recommend a course of remedial work. This may be in the form of specific or typical details, subject to the defect in question. You are advised to obtain estimates for the work from suitable contractors conversant in the type of work recommended prior to exchange of contracts. Should you require further investigations/appraisal, detailed specification of works/structural calculations or site supervision Freeman Consultancy would be pleased to offer our further services subject to agreed terms.

CONFIDENTIALITY

GENERAL DETAILS

NAME AND ADDRESS OF CLIENT

Mr G Ullyott
Ivy House Farm
Chapel Road
Pilley
Barnsley

ADDRESS OF PROPERTY INSPECTED

Barn Structure
Ivy House Farm
Chapel Road
Pilley
Barnsley

BRIEF DESCRIPTION OF PROPERTY

The premises comprise a barn structure within the complex of Ivy House Farm. Our instructions are to carry out a structural appraisal of the barn structure only and therefore no other buildings have been examined as part of this assessment.

The barn is thought to comprises an early 18th century structure, having rubble bonded natural sandstone external walls laid to regular coursing and all enclosed by a moderate double pitched roof which is unclad but most probably having stone slate originally. Windows have been removed and most openings infilled. No rainwater goods remain.

The barn is approximately 13.7m long x 7.0m wide and 5.7m to eaves, having a roof pitch of around 35 degrees.

Internally the barn is extensively overgrown and full of collapsed debris which render the area unsafe for detailed inspection.

LAYOUT

The building surveyed is identified in Fig 1, having open plan layout and no first floor.

THE SITE

The property sits on a relatively level site having access directly off Chapel Road, with side garden and driveway leading into the farm complex and adjacent farmhouse.

CLIENT'S BRIEF

Freeman Consultancy, have been appointed to undertake a limited and non-intrusive inspection of the premises which comprise the derelict barn structure. The principal purpose of this report is to

make an appraisal of the structure in question and provide supporting documentation in respect of a planning application for demolition and a replacement dwelling.

The report considers the proposed demolition and change of use and whether the existing structure is viable for conversion or reinstatement. At the time of inspection, detailed architectural proposals for the intended replacement dwelling were provided by JDS Design Services. Plans of the existing layout are appended in Fig 1 and proposed dwelling Fig 4.

Consideration will be given to the following aspects:

- Overall stability and robustness (potential collapse).
- Stability and carrying capacity of structural components (stability to carry loads).
- Serviceability (excessive deflection of floors and walls and any significant cracking to finishes).
- Durability (disproportionate cost to maintain stability and serviceability).

We have not exposed foundations, tested any services nor examined concealed areas of the structure, including woodwork, and therefore unable to confirm that such areas are entirely free from defect. Externally, the premises are examined from ground level or 3m ladders only.

SURVEY DESCRIPTION

The premises are described generally as viewed towards the north west facing elevation, as indicated on Fig 2. Each external elevation will be noted accordingly.

DATE OF INSPECTION: 11th July 2023

WEATHER CONDITIONS: Fine and dry

REPORT NUMBER: FC 2023.121

GENERAL DESCRIPTION OF PREMISES

As previously noted, the barn comprises a traditionally built structure thought to date early 18th century having rubble sandstone walls laid to regular coursing. To its east and west elevations openings are formed as large shallow segmental ashlar stone arches in a Queen Anne style with large tooled imposts and keystone.

Five mullion windows (4No infilled) remain to the west elevation with ventilation slots to its east elevation. Photos 1 and 4.

A tall opening has been created within the south gable, this framed by steel I sections and having a small lintelled window above. Photo 2.

The north facing gable is rendered above eaves level and shows the outline of a former single story structure abutting. Photo 3.

The building has a traditionally timbered roof comprising a series of King Post trusses with double purlins to each slope supporting common Jack rafters. There are 4No timber floor beams which span between the east and west elevations. A number of broken tile battens

remain but the roof covering in its entirety has been lost. All floor joists and decking components have collapsed. Photo 9.

The premises sit on a relatively level site within the Ivy Farm complex and is adjacent to the Old Manor House, formerly Pilley Farmhouse, which is designated a Grade 2 listed building.

The building is shown on the 1850s map with attached structure extending towards Chapel Road. This can be seen physically where it abutted against the remaining north facing gable. Fig.3.

GENERAL CONDITION

Visual examination indicates that the structure is in very poor overall condition, having no roof covering nor first floor structure and has obviously suffered due to long-term weathering resulting structural decay and movement.

The soft locally quarried sandstone walling has weathered significantly on all elevations and internally to such an extent that this cannot be practically repaired by simple repointing and localised stone replacement methods. We estimate that at least 50% of the external leaf stone work is beyond salvage and repair. Photo 5.

The west elevation is laterally distorted to an extent where this has become displaced upwards of 150mm within its height. Similar distortion is apparent to the other elevations. Photo 7.

The north gable has six large holes as a result of weather erosion and 75% of its outer leaf suffers excessive stone decay. Photo 6.

The south gable is in poor condition and has been weakened by the creation of the large opening.

It's east facing elevation could not be fully examined but show signs of stone decay and partial collapse along eaves level towards the south facing gable. Photos 4 and 11.

The roof is in a state of collapse and many timbers suffer excessive structural decay. Photo 10.

Severe damage and decay is noted to its former first floor structure.

SUMMARY OF FINDINGS

This report has been prepared in support of a planning application for a new dwelling and demolition of the existing barn structure (2023/0184). It considers its structural suitability and viability of demolition against possible reconstruction and conversion.

We would remind you that this report represents a non-intrusive examination of the premises and provides an overview of structural stability aspects only. It must not be read as that which represents a full schedule of condition nor addresses specific condition of non-load bearing elements of construction, and is not the same as that which might be used for pre-purchase appraisal.

We are of the opinion that the barn was perhaps constructed early 18th or late 17th century and reference to the 1850 Ordnance Survey map, originally surveyed in 1848 shows development on the site. Fig.3.

Construction is very typical of traditional local vernacular and building styles of agricultural heritage, having simple rubble stone wall construction beneath a double-pitched roof.

Regrettably, the structure is approaching ruin classification and has deteriorated significantly over the past few decades due to being exposed to the elements following collapse of the roof and rainwater goods, prevailing wind and acid rain erosion of its soft sandstone walls.

There is evidence of lateral instability, undoubtably exacerbated by the deterioration of the roof and loss of lateral support from the first floor, together with weakening as a result of the south gable opening.

Significantly the state of erosion to the stonework is such that this is not possible to repair without substantial reconstruction. Furthermore, much of the roof structure and remaining parts of the upper floor have decayed well beyond any viable economic repair. Unless propping of the structure is considered in the immediate future this will undoubtably become dangerous and further partial collapse is inevitable.

We are therefore our unable to propose any appropriate or cost-effective measures of reinstatement suitable for residential conversion and therefore support wholesale demolition.

While situated within the confines of a Grade 2 listed building, the barn has no specific architectural or historic features, other than the segmental stone arches. We understand that the design of the replacement dwelling is of a simple form and replicates these arches and therefore it may perhaps be possible to reuse the existing stonework within new construction, therefore retaining a physical element of the site's agricultural heritage.

SIGNED: 
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R.A. FREEMAN
BSc(Eng).PgDip, C.Eng.CBuildE, M.I.Struct.E. M.I.C.E. MCABE.

FOR: **FREEMAN DESIGN & SURVEYING CONSULTANCY LTD**

DATE: 27th July 2023

PHOTOGRAPHS 1-11

1. North west elevation

2. South west gable

3. North east gable

4. South east elevation

5. Typical stone erosion

6. Significant erosion of north east gable

7. Lateral distortion of west elevation

8. Large opening to south gable

9. Interior

10. Collapse of decayed purlins

11. Collapse of south east elevation below eaves level

Figs 1-4

Fig.1 Existing Plans

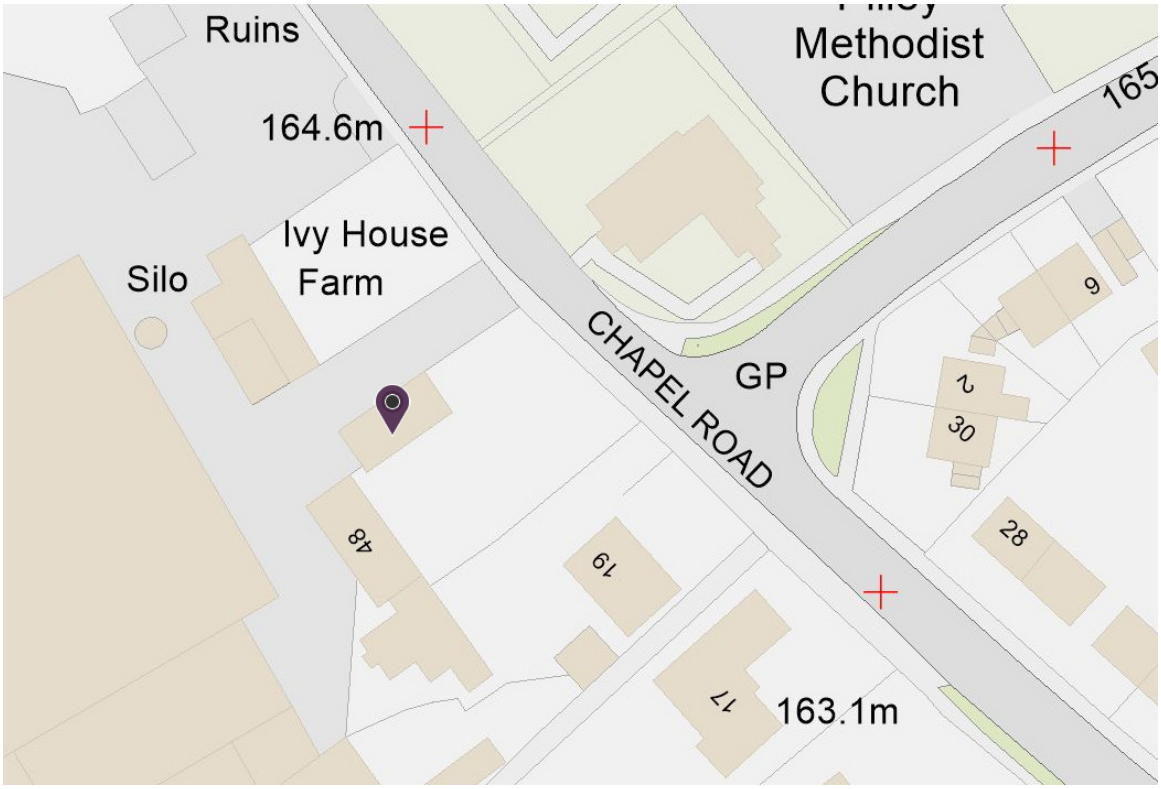

Fig.2 Site Location

Fig.3 1848 Surveyed Map

Fig.4 Proposed Dwelling