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STRUCTURAL INSPECTION OF THE CEMENT ASBESTOS COVERED BARN

AT

EAST REACH FARM. HOP HOLE. DEEPING ST NICHOLAS. PETERBOROUGH. PE11 3HJ

FOR

MR JIM WYERS.

PRIOR APPROVAL PLANNING APPLICATION

OCTOBER 2021

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1.0 Introduction

1.1 Scope of Instructions

Carry out a non-intrusive visual inspection upon the existing condition of the building fabric and finishes (excluding the inspection of all building services and external works including outbuildings and boundary treatments).
This survey seeks to identify if the building has the potential to be converted into domestic use without the need for extensive remedial works.
Any further clarification relating to the condition of all building services will need to be undertaken by the separate appointment of a mechanical and electrical specialist as deemed necessary by the client.
Assessing compliance with the Building Regulations 2000,
Approved Document B -Fire Safety Regulations,
Approved Document K – Protection From Falling Regulations,
Control of Asbestos Regulations 2012 and the
Equality Act 2010 (incorporating DDA 1995 legislation) did not form part of our instruction.
This said the building is clad with Asbestos Containing Material (ACMs) and subsequently a full asbestos survey will need commissioning and undertaking by the client prior to any works commencing.
In addition, any ACM will require removing in full by a specialist asbestos removal contractor and Clean Air Certificate authorised prior to conversion works commencing.
This report is for the private and confidential use of Mr Jim Wyers and should not be reproduced in whole or part or relied upon by third parties without the express written authority of the surveyor.

1.2 Property Address

East Reach Farm.
Hop Hole. Deeping St Nicholas.
Peterborough.
PE11 3HJ.

1.3 Client's name and address

Mr J Wyer
Owl Barn
Whaplode Drove
Peterborough
PE12 0TT

1.4 Date of Survey

Friday 28th October 2021. 10.00am

1.5 Weather Conditions / Temperature

Cloudy and 10 degrees centigrade.

1.6 Limitations of Inspection

Externally access to the roof and eaves were limited to a visual inspection in the absence of any scaffold or working platforms.
Records of these areas have been photographed.
Internally the higher levels were inspected from ground floor in the absence of any scaffold or working platforms.
Records of these areas have been photographed.
Specific limitations also listed under each building element inspected as stated.

2.0 Description of the Property

2.1 Type and Age

The main building is tall single storey, steel framed agricultural barn with adjoining single storey timber agricultural outbuildings.

The steel framed barn has a dual pitched roof and is rectangular in form.
For the walling it has a 1200mm high plinth constructed in the main from 140mm wide hollow clay blocks And with cement asbestos sheet cladding above with angle iron support rails.
The roof is formed from angle iron and flat iron members forming 3 principal trusses with angle iron purlins supporting cement asbestos sheet cladding.

The timber buildings are of a lean to nature and of more a traditional single storey height.
The shape of each is rectangular in plan form.
The walls are from a timber framing with no particular size used but from timbers that would have been available locally at the time.
They are clad with corrugated steel sheeting
The roof is constructed and clad in a similar nature.

The exact date of construction is unknown, however it is of a traditional local style and I would assume dates back to the middle to latter part of the 20th Century.
It is currently unused or used merely for storage purposes.
Its last formal use class was that of agriculture.

3.0 Setting
3.1 Location
The building is located on the right hand side of the A1175, Littleworth Drove, when approached from Deeping St Nicholas.

3.2 Orientation
PL. 1. Aerial site location plan taken from Google Maps ©



3.3 The Site and Surrounding Areas
The site on which the property is located is rural, with other isolated residential structures present and within the local vicinity.
The building site itself has an access at either end of the site and both direct off Littleworth Drove.

3.4 Local Factor
None present. The activities of neighbouring properties are not deemed to be of significant risk.
or requiring a consideration.

3.5 Trees and hedges
There are no trees or hedges on the site within the immediate vicinity of the building.

4.0 Surveyor's Overall Assessment
Elemental Condition Survey
4.1 Roofs
Description:
The larger building that is being considered for conversion under a prior approval application is of a steel framed construction.
In this particular building this means a set of steel universal beam columns of size 152mm x 76mm at an average of 4000mm centres supporting series of steel roof trusses with angle iron purlins over and in turn supporting the roof covering of corrugated cement asbestos sheeting
The steel would be supported and bolted down to a concrete pad foundation.

The smaller timber buildings are not capable of conversion under Part Q and to that end have not been surveyed and noted here.
Pictures are appended of those timber lean to structures merely to give a photographic record of the buildings at this time.

Current Condition:
The general line of the ridge is true and straight with no visible sag or wavering which suggests that no spread or movement has taken place.
Due to the age of the building and the asbestos cement roof covering there are only the obvious signs of weathering that are visible and based on this the sheeting appears to be in an average condition
The cement asbestos sheet roof covering has no obvious cracks or breaks.

Internally the roof consists of 3 no. primary steel roof trusses (supported by the steel stanchions) with secondary angle iron purlins/cladding rails spanning the length of the roof between the trusses and the gables.
There are no visible signs of wear and tear, repairs, sag or deflection.
A full inspection of the roof covering at roof height could not be undertaken due to a lack of safety platform or scaffolding and observations were from ground level.
Prior to reusing the structural roof members they will require cleaning down and treating with a rust preventer.
All Asbestos cement sheeting to the roof is to be removed and disposed of by a licensed contractor and replaced with a material that is non injurious to health.

4.2 Rainwater Goods
Description:
Rainwater goods.
Current Condition:
The guttering and downpipes throughout appeared to be missing and will need renewing as part of any future conversion scheme.
This situation will currently be causing the uncontrolled discharge of surface water to areas of soil that could cause problems in the future with respect to washing away the fines in the sub soil and causing structural movement.

Inaccessible Roof Areas / Limitations:
Nil

4.3 External Walls

Description:

The external walls of the building consisted of 140mm thick clay blockwork up to a height of 1200mm. Above that the walls are totally clad with cement asbestos sheet cladding with support from stanchion to stanchion by angle iron support rails.

The stanchions are from universal steel sections sized 152mm x 76mm.

Current Condition:

Generally all walls appeared to have a true vertical alignment with no obvious significant bowing noted. Throughout the agricultural barn, the external walls appeared to be sound with no significant evidence of structural cracking or movement to prevent the buildings viability for conversion.

Various sheets of cement asbestos were seen to have small pieces broken which considering the former use and age is understandable.

Prior to reusing the structural wall members (ie stanchions and rails) they will require cleaning down and treating with a rust preventer.

All Asbestos cement sheeting to the walls are to be removed and disposed of by a licensed contractor and replaced with a material that is non injurious to health together with being sustainable,.

Any areas of clay block walling that is defective where they have been scraped or punctured locally will need to be repaired prior to being over clad.

Inaccessible Areas / Limitations:

None.

4.4 Damp-proof Courses

There was no evidence of a damp proof course that could be seen at the time of inspection.

As part of any conversion works this point would need addressing.

4.5 Internal Walls (Including Finishes)

There were no internal wall present within the building for comment

Inaccessible Areas / Limitations:

None

4.6 Floors (Including Finishes)

Description:

The ground floor consisted of a concrete floor.

Current Condition:

The concrete floor was in good to average condition with no obvious signs of substantial cracking or other damage.

Inaccessible areas / limitations:

None

4.7 Ceilings (Including Finishes)

There were no specific ceiling linings or finishes present within the building for comment

4.8 Windows, Doors and Joinery

Description:

Sliding steel door at the barn entrance.

Current Condition:

The door is in an average to poor condition and will be removed as part of the conversion.

Inaccessible Areas / Limitations:

None.

4.9 Building Services:
We were not instructed to carry out an inspection of the building services. This was not carried out.

5.0 Conclusions and Recommendations
5.1 Conclusion
From the inspection the building has survived the test of time quite well even though there may have been little maintenance to the building in the recent past.
Its internal structure is sound and its fabric covering shows the signs of weathering of a building of this age.
Bearing the above in mind there is a clear potential to re-use the building, and the space within, and for a new use without the need for excessive remedial work and overall rebuilding.
An application for a prior approval is being prepared for a conversion to a residential unit which I consider can be undertaken successfully within the structure of the existing building.
The recommendations following provide an indication as to what will be required in terms of building works and remedial measures.

5.2 Recommendations
The purpose of this report was to carry out non-intrusive visual inspection upon the existing condition of the building structure, fabric and finishes (excluding the inspection of all building services and external works including outbuildings and boundary treatments).
It also had the purpose of determining the buildings capability to be refurbished/converted for use as a domestic dwelling. (Please see the Architectural design details,)
The following recommendations should be considered upon the conversion of the building.

- All debris and waste and fittings should be removed from inside the building.
- The existing concrete ground floor should be retained and a new suspended floor of timber constructed over incorporating insulation and damp proofing.
- External walls should be lined internally with a timber or lightweight blockwork skin to accommodate insulation and to meet required 'U' values.
- A new damp-proof course should also be incorporated.
- Remedial works in the form of cleaning and coating for rust prevention should be carried out to all structural steel members.
- All asbestos containing materials to the walls and roofs should be fully removed from site and disposed of by a licensed specialist contractor.
- New roof coverings and insulation should be installed .
- New guttering and rainwater pipes should be installed.
- New windows and doors in accordance with the Architectural designs are to be to current security and insulation standards. Particular attention should be paid to weatherproofing bearing in mind the buildings open location.
- All existing electrical fittings and components should be removed and replaced.
- A new metering system will be required.
- A new septic tank and soakaway should be incorporated into any proposal schemes.
- Further investigation should be carried out regarding the existing provision of services and drainage to the building.
- Installation of further services as required. (Electrical and water primarily).

PL. 1. Illustrating the building facing the South



PL. 5. Illustrating the internal parts of the building facing West



PL. 1. Illustrating the building facing the North



PL. 5. Illustrating the internal parts of the building facing East



PL. 5. Illustrating the internal parts of the building facing North



PL. 5. Illustrating the internal parts of the building facing South

