

Structural Survey Report for Four Barn Conversions at Carlton House Farm, Carlton, Nuneaton, Warks CV13 OBX

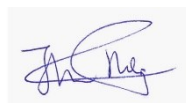
for:

Dr J and Mr S Pointon, Roberts Farm, 4 Church Street, Salford, Melton Mowbray
LE14 4DL

Date	Issued	Revision
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Reference: 83024-01

Prepared by:



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Director

1. INTRODUCTION

- 1.1 In accordance with your instruction we have visited the above premises and inspected the existing four barns with regard to their proposed conversion to residential use.
- 1.2 The purpose of the survey was to inspect the existing structural condition of the barns in order to produce a report to accompany a Class Q application for planning purposes. The four barns inspected are as marked on the appended Google Earth plan (appendix I).
- 1.3 The survey was carried out on Thursday 19 December 2024.
- 1.4 The conditions stated in the appendix to this report were applied to this survey and the report is to be read and construed accordingly
- 1.5 References to left and right are given as viewing the barns from the elevation of all barns facing towards Congerstone Lane.
- 1.6 The barns were set back from Congerstone Lane by approximately 200m with access via a farm track.
- 1.7 A photographic record was taken as part of the survey (appendix II).
- 1.8 The following appendices apply:

Appendix I	Google Earth Plan of the Barns
Appendix II	Photographs
Appendix III	General Conditions

2. **THE PROPERTIES**

2.1 Barn 1

2.1.1 The barn was a single storey detached steel portal framed building. The roof was clad with fibre cement profiled sheeting supported by timber purlins spanning between steel rafters which formed part of the portal frame. The fibre cement sheeting may contain asbestos.

2.1.2 There were clear roof light panels at regular centres.

2.1.3 The barn was open to the front with the walls clad in horizontally spanning corrugated metal crash barrier type sections up to 2m or so in height with hit and miss timber boarding above that level (photographs 1 and 2).

2.1.4 There was a ground bearing concrete slab present throughout the building which appeared to be in serviceable condition and had been used to support heavy farm machinery such as a tractor (photograph 3).

2.2 Barn 2

2.2.1 Barn 2 was in two parts; both parts were single storey. The left hand part was clad on all four sides, whereas the right hand portion had an open side to the rear (photograph 5).

2.2.2 The enclosed section was a single storey concrete portal frame with the roof supported on variable depth concrete purlins (photograph 6).

2.2.3 The enclosed section had a fibre cement roof covering. The walls were clad in blockwork up to a height of 2.5m or so. Above this level, fibre cement sheets formed the wall cladding (photograph 7).

2.2.4 The roof covering to the left hand part had the occasional roof light. The ground floor was of concrete construction.

2.2.5 The open sided right hand portion was of steel portal framed construction with a fibre cement roof covering. There were roof lights at regular centres to the roof.

2.2.6 The floor to the section was a hard gravel surface with the wall cladding being similar to barn 1 (photograph 8).

2.2.7 There was a sliding access door in the left hand end wall (photograph 9).

2.3 Barn 3

2.3.1 This barn was a single storey detached steel portal framed building. The roof was clad with fibre cement profiled sheeting supported by timber purlins spanning between the steel rafters forming the portal frame. The fibre cement sheeting may contain asbestos (photograph 10).

2.3.2 There was a lean to roof section of the barn to the left hand end.

2.3.3 The barn was open at the front with the walls to the ends and rear clad in horizontal spanning corrugated metal crash barrier type sections up to a height of 1.5m or so with corrugated asbestos cement sheeting above.

2.3.4 There were roof light panels at regular centres.

2.3.5 There was a ground bearing concrete slab present throughout the building.

2.4 Barn 4

2.4.1 Barn 4 was a single storey brick built structure with a slate roof (photograph 11). There were small hipped sections to the roof at the gable ends.

2.4.2 The slated roof was supported on timber rafters and purlins and thence timber trusses (photograph 12).

2.4.3 The barn was open at the front wall with substantial brick piers supporting the timber trusses. There was a substantial timber beam spanning between the piers.

2.4.4 There was a concrete ground floor.

3. **OBSERVATIONS AND DISCUSSION**

3.1 **Barn 1**

- 3.1.1 The building appeared to be in a good overall general condition with no obvious indications of significant structural distress.
- 3.1.2 Conversion to a residential property will require thermal upgrades to the wall and roof structures. This will probably mean that additional dead loads from cladding materials and thermal insulation will be transferred to the steel frame. That being the case, the frame and the timber purlins will need to be assessed for the additional dead loading from these materials.
- 3.1.3 It was noted that the building was not served by below ground mains foul and surface water drainage systems. Conversion to residential use will require these services to be provided to the building by the use of septic tanks or a packaged sewage treatment works or by connection to an existing mains drainage systems.
- 3.1.4 The building did not appear to benefit from an electrical supply.
- 3.1.5 To meet current thermal regulations, the ground floor will have to incorporate thermal insulation.

3.2 **Barn 2**

- 3.2.1 Both parts of the building appeared to be in good overall general condition with no obvious signs of significant structural distress.
- 3.2.2 Conversion to a residential property will require thermal upgrade to the wall and roof structures. This will probably mean that additional dead loads for the cladding and insulation materials will be transferred to the concrete and steel frames. That being the case, the timber and concrete purlins, together with the concrete and steel frames, will need to be assessed in respect of their capacity to support the additional loads from these materials.

3.2.3 It was noted that the building was not served by below ground mains foul and surface water drainage systems. Conversion to residential use will require these services to be provided to the building by the use of septic tanks or packaged sewage treatment works or by a connection to existing mains drainage systems.

3.2.4 The building did not appear to benefit from an electrical supply.

3.2.5 The ground floor slab to the left hand portion will need to be upgraded to meet current thermal regulations by the incorporation of thermal insulation above the existing slab. To the right hand portion a concrete slab will be required incorporating thermal insulation.

3.3 Barn 3

3.3.1 The building appeared to be in a good overall general condition with no obvious indications of significant structural distress.

3.3.2 Conversion to a residential property will require thermal upgrades to the wall, floor and roof structures. This will probably mean that additional dead loads from cladding materials and thermal insulation will be transferred to the steel frame. That being the case, the frame and timber purlins will need to be assessed for the additional dead loading from these materials.

3.3.3 It was noted that the building was not served by below ground mains foul and surface water drainage systems. Conversion to residential use will require these services to be provided to the building by the use of septic tanks or a package sewage treatment works connection to existing mains drainage systems.

3.3.4 The building did not appear to benefit from an electrical supply.

3.3.5 The ground floor slab will need to be upgraded to meet current thermal regulations by the incorporation of thermal insulation above the existing slab.

3.4 Barn 4

3.4.1 The building appeared to be in a good overall general condition with no obvious indications of significant structural distress.

- 3.4.2 Conversion to a residential property will require thermal upgrades to the wall and roof. This will probably mean additional deadloads will be applied to the rafters, purlins and trusses. That being the case these members will need to be assessed for additional loading from these materials.
- 3.4.3 It was noted that the building was not served by below ground mains foul and surface water drainage systems. Conversion to residential use will require these services to be provided to the building by the use of septic tanks or a package sewage treatment works connection to existing mains drainage systems.
- 3.4.4 The building did not appear to benefit from an electrical supply.
- 3.4.5 The ground floor slab will need to be upgraded to meet current thermal regulations by the incorporation of thermal insulation above the existing slab.
- 3.4.6 The brickwork walls and particularly the substantial piers at the front, were suffering from mortar joint erosion in localised areas.

4. RECOMMENDATIONS

- 4.1 All the buildings were in a good overall structural condition and suitable for conversion to residential use.
- 4.2 The steel and concrete frames, together with the purlins and brick walls, should be assessed by a suitably qualified engineer (such as PRP) to ensure that any additional loads placed upon them, as a result of conversion to residential properties, can be safely sustained without undue distortion.
- 4.3 The roofs and walls need to be thermally upgraded. This may necessitate additional purlins, cladding rails and the like.
- 4.4 A concrete ground floor slab incorporating thermal insulation should be installed where there is no slab. This new slab – and the existing slabs – will require upgrading with floor installation installed above the structural slab.
- 4.5 Foul and surface water drainage systems will need to be provided either by the connection into existing mains drainage systems or the provision of either a septic tank or packaged sewage treatment works for the foul sewer and sustainable surface water drainage system. An electricity supply will be needed as well.
- 4.6 A demolition and refurbishment survey should be carried out on all the buildings by a qualified asbestos surveyors (such as PRP).

APPENDIX I

GOOGLE EARTH PLAN OF THE BARNS



APPENDIX II

PHOTOGRAPHS



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



Photograph 7



Photograph 8



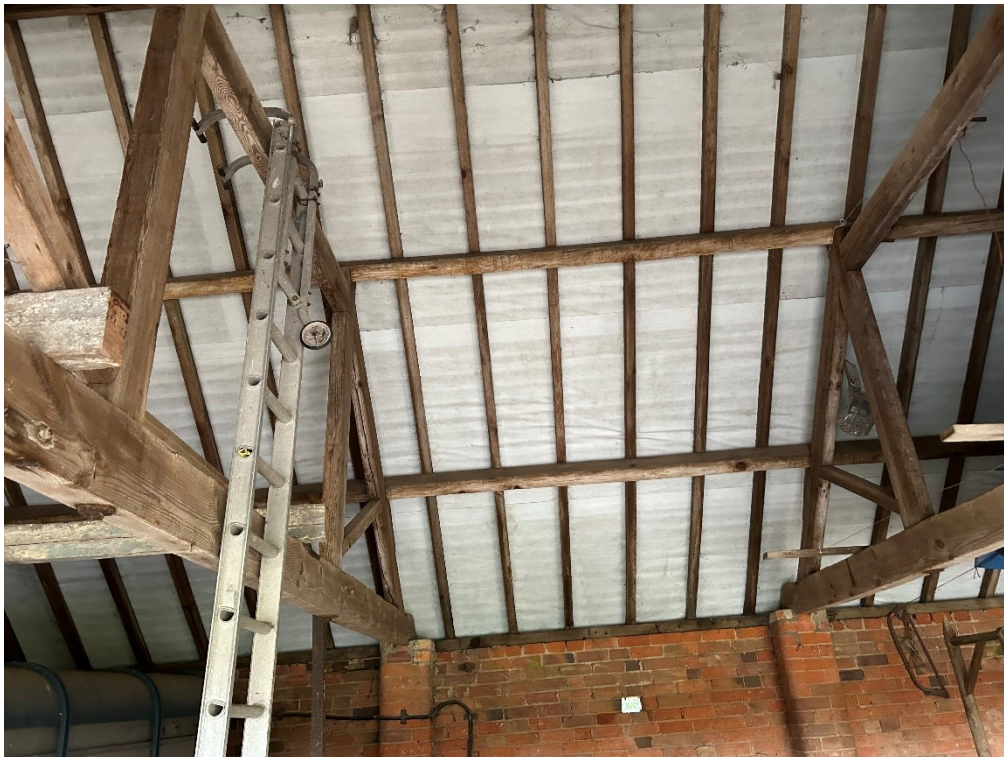
Photograph 9



Photograph 10



Photograph 11



Photograph 12

APPENDIX III**GENERAL CONDITIONS**

1. We did not inspect woodwork or other parts of the structure which were covered, unexposed or inaccessible, and we are therefore unable to report that any such part of the property is free from defect.
2. No attempt has been to establish and no liability whatsoever is accepted for the possible presence of heavy metals, chemical, biological, electromagnetic or radioactive contamination or pollution, or asbestos or mould of any kind, or radon, methane or other gases, or springs, water courses, sink holes or the like, or noise or vibratory pollution.
3. This report was prepared on the instructions of the client(s) at the address shown at the beginning of this report and is exclusively for his/her/their benefit. Complete copies of this report may, however, be made available to parties having a direct interest with or on behalf of the client(s) in matters related to the contents of this report.
4. No reliance may be placed in the contents of this report by any third party except with the express agreement of the original client and the written agreement of PRP. Such written agreement may require the payment of an additional fee.
5. For the avoidance of doubt, the parties confirm that this report shall not and the parties do not intend that this report shall be construed as conferring on any party any rights to enforce any term of this Agreement pursuant to the Contracts (Rights of Third Parties) Act 1999.