



16 October 2023
Ref: IA23/111/GLB

Last and Tricker
3 Lower Brook Street Mews
Ipswich IP4 1RA

For the attention of Martin Last

RE: 9 MANOR ROAD, ELMSETT

1. BRIEF

J P Chick and Partners were appointed by Last and Tricker to undertake a visual inspection of an agglomeration of assorted barn structures at 9 Manor Road, Elmsett. The purpose of our inspection was to review the general barn constructions and advise if the structures are suitable for conversion into a residential dwelling.

2. DATE OF INSPECTION AND WEATHER

Our inspection was undertaken on 25th September 2023. The weather was dry and bright.

3. BRIEF DESCRIPTION

9 Manor Road is located to the north of the highway in the postcode of IP7 6PN.

The cluster of barns are set back and to the north of the principal residential property that fronts onto the highway. The site is generally level, and the barns are bounded by both areas of hardstand, areas laid to lawn or general wasteland.



Member of the Association of Consulting Engineers

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There are a number of trees to the periphery of the site which are reasonably remote from the barn complex. There are four distinctly individual and attached structures forming the group. For the purpose of reference these will be referred to as Structures A – D within this report.

The main barn (Structure A) is approximately 9m x 9m in plan area and two-storey in height with a pitched roof over clad in profiled steel sheeting.

The main barn has an Annexe located to the Northeast (Structure B) which is a single storey lean to construction of approximate plan area 4.5m x 6m. This in turn has a single storey blockwork addition to the Northeast (Structure C) which is approximately 4m x 6m in plan area with a very fleet/flat roof.

To the Southeast of the Annexe is the final section of the complex (Structure D) which comprises a duo pitched roof clad over in asbestos cement sheeting with a footprint of approximately 4m x 9m orientated in a Northwest / Southeast orientation.

4. GEOLOGY AND THE ENVIRONMENT

With reference to the British Geological Survey the site is within an area comprising of Lowestoft Formation - Diamicton Superficial deposits which overlay the Hewhaven Chalk formation Bedrock. The site is close to a geological boundary to the north where the superficial deposits are recorded as Head – Diamicton.

5. GENERAL DESCRIPTION

There are four arguably individual and attached structures forming the agglomeration. As note, for term of reference these are Structures A – D.

Structure A

The main barn (Structure A) is approximately 9m x 9m in plan area and two-storey in height with a pitched roof over clad in profiled steel sheeting.

The pitched roof is formed with two distinct elements, with a duo pitch truss to one side and a lean to/catslide roof to the other.

The duo pitched roof is constructed from principal trusses spaced at 2.2m centres with battens over supporting the roof sheeting measuring $\approx 50 \times 75\text{mm}$ with three battens to each pitch. The trusses have rafters of $\approx 50 \times 125\text{mm}$ with bottom chords of $\approx 50 \times 100\text{mm}$. The bottom chord and rafter are connected by a series of $\approx 50 \times 100\text{mm}$ vertical timbers along the face of the truss.

The lean-to roof is formed from $\approx 50 \times 100\text{mm}$ rafters at 1.3m centres with $\approx 50 \times 50\text{mm}$ battens spanning between at $\approx 1.3\text{m}$ centres.

The roof structure bears onto an eaves beam of dimension $\approx 75 \times 150\text{mm}$ which spans between the principal posts.

The walls to the main barn are formed from reclaimed telegraph poles at close regular centres to both the side and rear walls of the barn, and internally to support the intersection of the differing roof constructions. To the side and rear walls are horizontal timber rails measuring $50 \times 100\text{mm}$ at 1.3m vertical centres which support the profiled steel sheet cladding. The barn has a full height open frontage.

The main barn has a ground bearing concrete slab which is in very good condition given the heavy usage it has been subjected to.

Structures B and C

The main barn has an Annexe (Structure B) located to the Northeast which is a single storey lean to construction of approximate plan area $4.5\text{m} \times 6\text{m}$. This in turn has a single storey blockwork addition to the Northeast which is approximately $4\text{m} \times 6\text{m}$ in plan area (Structure C).

The roof comprises $60 \times 70\text{mm}$ rafters at $\approx 950\text{mm}$ centres, with battens over to support the profiled sheet roof coverings.



The walls to this structure comprise 60 x 70mm studs at 700mm centres which are clad externally in horizontal shiplap boarding.

Further to the Northeast of the Annex is a further extension to the barn (Structure C) which has a very fleet roof supported on blockwork walls. Internal access was not available at the time of our inspection however the general structure appeared in fair condition when viewed externally.

Where exposed the floor slabs all appear in reasonable condition.

Structure D

This is located to the East of the main barn and comprises a duo pitched roof clad over in corrugated asbestos cement sheeting with timber framed walls sheathed externally in horizontal shiplap boarding.

The roof sheeting is supported by 50 x 60mm purlins at 800mm centres which in turn are supported off timber trusses at 1.2m centres comprising of 50 x 75mm rafters and collars \approx 20 x 100mm in section.

The walls to this structure comprise 60 x 70mm studs at 1m centres which are clad externally in horizontal shiplap boarding. The walls incorporate numerous openings to provide light and ventilation for the previously housed livestock.

Where exposed the floor slab appeared in reasonable condition.

6. LIMITATIONS

This report shall be for the private and confidential use of the client for whom it was undertaken, and it should not be reproduced in whole or in part or relied upon by third parties for any use without the express written authority of J P Chick and Partners Limited.

Unless stated otherwise in the report, we have not disturbed or removed any fixtures or linings. Coupled with this, we have not exposed the foundations or tested the drains serving the site or individual barns. We are therefore unable to report that such part of the property is free from defect.

We have not inspected woodwork or other parts of the structure, which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

The condition of the finishes, waterproofing, damp penetration and structural timbers, unless specifically referred to, are not the subject of this report. We would recommend the services of a specialist to cover these areas.

We have not undertaken any environmental or contamination assessment of the site and any such requirement would be subject to a separate commission.

7. DISCUSSION

The barn structures are in a reasonable condition throughout with the roofs, walls and floor slabs all having functioned adequately to date.

There will be a requirement for heavier roof coverings as part of the conversion works, with further consideration to the installation of photovoltaic cells in some areas. The roof structures will need to be reviewed and enhancing augmentation with additional timbers.

The wall structures have operated well to date, and it is considered that these will support any nominal increase in roof loading. As part of the conversion works the installation of insulation will likely require the walls to be upgraded with the addition of plywood sheathing to provide overall stability.

New internal walls will also provide significant enhancement to the overall stability of the structures by being constructed as buttressing structures.



The new 1st floor to the principal barn may be constructed on an independent steel frame arrangement which can be connected to the existing barn to increase stiffness of the structure.

Foundations have not been exposed. These will need to be exposed during the construction phase to confirm suitability and new foundations will need to be constructed where the open frontage is to be infilled with an external wall, all to building control approval.

8. CONCLUSIONS AND RECOMMENDATIONS

The Barn structures are in fair to good condition throughout and have performed adequately to date.

The heavier roof construction will require augmentation subject to calculation, however, should this be required this would simply constitute the installation of additional timbers.

The wall structures are suitable for conversion and will be enhanced by the addition of a sheathing ply. New openings for windows and doors will require simple trimming/framing.

The new first floor will be an independent and self-supporting structure with an independent foundation.

The floor slabs appear to be in generally good condition throughout and will be subject to lighter loadings than previously experienced following the conversion and are therefore considered suitable for retention.

We consider that the barns are capable of being upgraded to a residential standard, retaining the existing standard, retaining the existing structural components, and strengthening by augmentation with additional timbers.

Signed. *Paul Davis*
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On behalf of J P Chick and Partners Limited
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