

STRUCTURAL APPRAISAL

LIVESTOCK BUILDING ON LAND AT ARTHUR LANE AINSWORH BURY

**FOR
MR M. JAGGER**



Project No:	19-50
Date:	November 2019
Undertaken by:	Nigel Peel

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1.0 INTRODUCTION

- 1.1 Following a verbal instruction from Mr M. Jagger, we undertook a structural appraisal of the former 1940s "Prefab House" on land at Arthur Lane, Ainsworth, Bury.
- 1.2 A Structural Appraisal of the buildings to be retained and which form part of the new development was a recommendation given in the Council Pre-application Statement, Enquiry 02313/E.
- 1.3 This report sets out the form of construction and structural condition of the buildings to be retained and itemises any remedial, rebuild and repairs deemed necessary to secure the buildings long term structural integrity and future conversion into a three-bedroom dwelling.

2.0 GENERAL OBSERVATIONS

- 2.1 There are three buildings on this site, and all are currently used for housing livestock. Two of the buildings would have been original used for other purposes prior to being erected on this site.
- 2.2 Building A is a former 1940s AIROH aluminium alloy "Prefab House" with composite aluminium panels bolted together to form the building envelope, erected on a concrete floor slab probably in the 1950s. The envelope includes original window and door openings. The roof covering is profile metal, this is obviously a more recent material which has replaced the original roof covering; however, this is still fixed to the original timber trusses of the AIROH prefab, albeit some of the trusses are now missing and the spacing is irregular.
- 2.3 Building B is a simple mono-pitched large section size timber framed structure with profiled metal cladding to the walls and roof and was probably fabricated on site.

- 2.4 Building C is a concrete framed structure with concrete infill panels with steel trusses and profiled cement sheet roofing, probably originally used as a double garage prior to being erected on this site.
- 3.0 CONCLUSIONS AND RECOMMENDATIONS
- 3.1 All the buildings are currently used for the housing of livestock, that being sheep and horses. All show signs to varying degrees, distress and deterioration as one might expect from their current use.
- 3.2 The proposal is to retain only one of the original buildings on site for conversion into a dwelling and that is building A. Buildings B and C are to be demolished and removed from site.
- 3.3 Building A which, thanks to the aluminium composite cladding of the AIROH "Prefab House" has weathered the test of time and withstood the abuses of the livestock.
With the replacement of the missing original timber roof trusses with matching timber trusses the roof structure should adequately be able to cope with the proposed new profiled cement roof cladding and the increased requirements for higher insulation levels as necessary to comply with Building Regulations.
The composite aluminium wall panels will continue to support the roof structure and protect the dwelling from the external elements and with the addition of further insulating materials to the inside of the wall panels compliance with Part L of the Building Regulations will again be achieved.
The existing Concrete floor slab is to be removed and replaced with a new concrete slab with under floor insulation and damp-proof membrane.
The individual aluminium wall panels are to be patch repaired where necessary in situ or temporarily removed from site for repair in local body shop. All panel joints are to be resealed as necessary and primed to receive a new spray paint finish.
- 3.4 We therefore conclude that Building A (AIROH "Prefab House") is structurally sound and suitable for conversion back into a dwelling.