

REPORT NO. 21-033R_001

ON

**Proposed Conversion of Agricultural Building at Pear
Tree Farm, Hinderclay**

FOR

Mr D Thorrold

February 2021

REPORT ISSUE REGISTER

Rev. No.	Author	Checked	Date
A	Neil Mitchell	NM	16/03/21

Author: Neil Mitchell

Position: Director

Signature:



Date: 16 March 2021

Contents

1.0	Introduction.....	4
2.0	Description of Building.....	5
3.0	Observations.....	6
4.0	Discussion.....	7
5.0	Conclusion	8
Appendix A	Property Elevations	9
Appendix A	Property Defects	11
Appendix A	Front Section Internal.....	15
Appendix A	Rear Section Internal	17

1.0 Introduction

Blackmoore Consulting was instructed by Mr D Thorrold to undertake a visual structural inspection of an existing barn on Chapel Road, Hinderclay in relation to an application for the proposed change of use of storage building to single residential dwelling.

The report is based upon a visual inspection of the building undertaken on the 02 February 2021. The barn is of load bearing masonry construction with an arrangement of timber framed trusses and purlins. The elevations are exposed masonry with cement board roof covering.

No areas were opened up to inspect the walls or columns and no samples were taken for testing. We therefore are unable to confirm that those areas not inspected or areas of structure hidden from view are free from defects.

Whilst this report notes defects to the property, this report is proposed to comment on the structural viability of conversion of the barn.

2.0 Description of Building

The barn is situated off Chapel Road, on the outskirts of Hinderclay and is currently being used for storage as part of the adjacent farm. There is direct access to the barn via Chapel Road.

The building is rectangular in shape with the barn currently divided into three sections. Two sections form the main front part of the barn which has a duopitch roof, with a rear section which has a monopitch roof. The barn is rectangular in nature and generally having an east to west orientation.

All parts of the barn are a single storey load bearing block which supports a duopitch roof with gables to the north and south elevations. The monopitch roof extends from the rear of the building on the eastern elevation. The roof structure for the duopitch is a regular arrangement of timber trusses, purlins and rafters. The rear monopitch section is also timber construction with a regular arrangement of rafters and purlins. The roof covering to the monopitch section is fibre cement, with the rear monopitch section a plastic roofing sheet.

The masonry walls are single skin solid construction and exposed throughout. Internally to the main front section of the barn the floor is of concrete construction with varying levels, due to the previous agricultural use. The rear section is also of concrete construction.

The front western elevation has two large openings to the front elevation along with an additional window. The only other openings to the building currently are doorways to the front and rear section on the northern elevation.

3.0 Observations

Externally the masonry has a vertical crack on the southern elevation at the duo pitch front section of the barn and the rear mono pitch section. There is a minor vertical crack to the southern elevation a mid point of the duo pitch section wall, propagating from low level.

To the western elevation there is some minor damage that has displaced the masonry around the door openings at lintel level, along with a minor vertical crack central to the masonry elevation.

The northern elevation has a small displaced crack within the masonry adjacent to a door opening. There are no other defects to the remainder of the masonry to the building.

Internally there is no evidence of water ingress in all sections of the barn. The main duo pitch roof remains in good order with only minor evidence of beetle attack and no wet or dry rot evident. The timbers generally appeared in good condition and performing as required. The rear mono pitch roof has been more recently replaced and is also performing as required with no noticeable defects.

There are concrete slabs in both areas of the barn with these also in good condition, no noticeable cracks or deviations in level. The slab to the main section of the barn is constructed over various levels.

4.0 Discussion

The structure of the building presents in reasonable condition throughout, with no large scale movement or distortion within part of the structure. There has been some minor movement particularly to the southern and western elevations, but this is minor in nature and does appear to be historic.

The internal slab is not presenting in a condition where settlement is an issue. All walls are maintaining line and level, with no distortion within the roof ridge line.

5.0 Conclusion

The building presents in reasonable structural condition and a review of the existing structure has identified sufficient spare capacity to support the loads associated with a conversion.

As with any building of this age, there may be a degree of repair required when converted and of note some stitching of the historic cracking noted to the southern and western elevations should be attended to, however it is considered the structure is adequate to support a conversion of this type.

Appendix A

Property Elevations





Appendix A

Property Defects









Appendix A

Front Section Internal





Appendix A

Rear Section Internal

