

Cooper Associates

Consulting Structural Engineers



CA7317.01

02 April 2025

4 Edward Square
London N1 0SP
Tel: 020 7606 0192
post@engcooper.com
www.engcooper.com

The Granary, Pound Farm, Wiltshire, SN15 3RG.

Purpose of the Report

Cooper Associates have been instructed to carry out an initial feasibility into converting the dilapidated Granary Building at Pound Farm, SN15 3RG into residential accommodation. An initial Architectural layout proposal has been included at the end of this report. This report is only an initial appraisal, and it should not be considered as a detailed structural report.

Introduction

The property is L shaped in plan and is constructed with rubble stone walls which have been made good in the past by building up or reinstating areas of the external walls in a more modern brickwork. The condition of the brickwork suggests that these repairs have been carried out at different times.

Condition of the structure

Lintels over the doors and windows comprise usually rotten timber. The brickwork has dropped in places because of these defective lintels, all of which will need to be replaced.

The roof areas comprise corrugated sheets supported by nonoriginal timber joists. Most of the roof areas have collapsed and any remaining areas should be approached with care given the risk of collapse of the remaining roof.

The walls are largely vertical although some areas of brickwork have fallen away. The remaining areas of stonework appear to be in a fair condition. Deep repointing in a lime mortar will be required over most of the surfaces together with the stitching in of brickwork where bricks are missing. In some areas the extent of spalled brickwork is so excessive that it suggests that the area of brickwork might be unusually porous and would be difficult to make watertight. See left of photo 3, bottom half of the wall.

Given this specific area of damaged brickwork we recommend propping the more stable upper section of wall and replacing the defective brickwork below with dressed stone or similar brickwork on a foundation with a similar depth as the adjacent retained foundations.

Cooper Associates Structural Engineers Limited

Directors: Eur Ing **M C Cooper** BSc CEng MICE MStructE – **A M Watt-Cooper** BSc. - Associate: Eur Ing **D Dorosinski** BEng MSc CEng MStructE
Registered Office : 51 Clarendon Road, Watford, Herts WD17 1HP Registered as a Limited Company in England and Wales Number 7186495

An adjacent door has been infilled with blockwork below a timber lintel. The blockwork and the lintel should be removed, and the new construction should be continued to infill these areas of wall.

There are no signs of subsidence. The ground in the area is reported to be *OXFORD CLAY FORMATION – MUDSTONE* which is unlikely to have a high plasticity. There are no large trees close to the property that might result in subsidence because of the clay ground. Given these circumstances, we would not normally expect to underpin the foundations even though they are very likely to be shallow. Trial holes will be excavated, and the matter will be discussed with the Building Control Officer for the project.

The existing modern concrete floor (photos 4 & 5) appears to be in a relatively good condition; however, a damp proof membrane and insulation will need to be introduced into the construction finishes assuming that the floor levels work for the new refurbishment.

Conclusion

The purpose of this report is to establish in structural terms whether the conversion into a usable property is feasible without significant modification or demolition. We consider that the areas of wall and most of the existing modern concrete ground slab can be retained. The walls will need remedial works, and an area of spalled brickwork has been identified which we consider should be replaced. All of the lintels will need to be removed and be replaced.

The defective roof – which is modern in the context of this building, should be removed and be replaced with a new pitched roof.

A modern DPC will be required over the floors and to the walls. Presumably insulation will be installed against the external walls and as part of the roof construction as part of the conversion works.

We recommend building most of the internal works in blockwork, off the ground slab and tied to the walls with Ancon wall extenders or similar. This will improve the stability of the structure, given the age of the external walls.

Report by

Eur Ing **M C Cooper** BSc CEng MICE MStructE
Cooper Associates.



1 Return wall to the gable



2 Gable end – the short leg of the L

3 Longer view of photo 1 with the defective roof and the spalled low-level brickwork



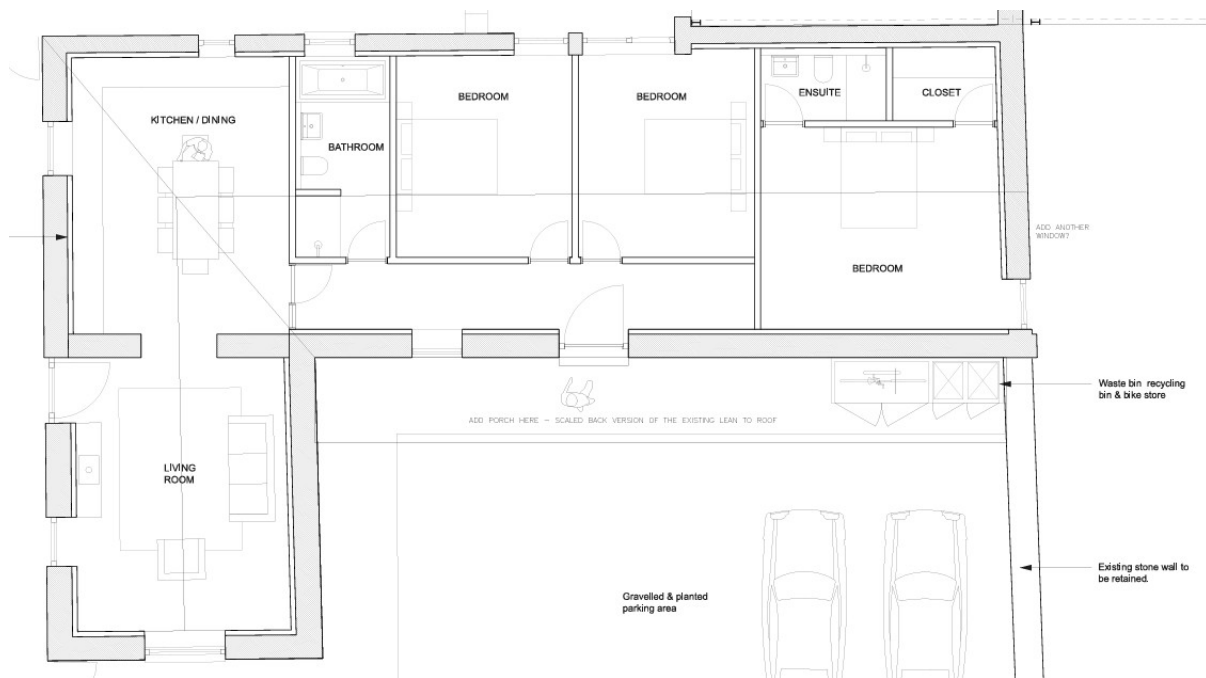


4



5

The modern roof to the main barn area and the modern concrete ground slab.



An initial layout proposal for the barn.