**STRUCTURAL APPRAISAL**

**OF**

**THE BUILDINGS AT KEEPERS COTTAGE**

**SOMERDEN GREEN**

**KENT TN8 7AL**

**CLIENT: MR GERARD**

**PLANNING CONSULTANT: ROBINSON ESCOTT**

**DATE: MARCH 2021**

**KEEPERS COTTAGE**

1.0 **BRIEF**

We have been requested by the Client to carry out a structural appraisal of the existing building so as to establish its potential for conversion into a domestic unit. This report is primarily intended for ancillary information, to be read in conjunction with the Planning Application and does not constitute a full summary for Building Regulation approval.

2.0 **EXPERIENCE**

Trevor Cossey has over 40 years of experience as a structural engineer and has carried out structural assessments and surveys of both new and historic buildings throughout the South East. Throughout his career he has concentrated on work associated with building conversions and upgrades and brings a sympathetic approach to his work with older structures. Trevor’s qualifications are as follows: BSC (Hons)

C Eng. MIStructE.

3.0 **DESCRIPTION**

The complex comprises two areas: the first was previously used as a garage and the smaller area for ancillary use. Both buildings are of a timber-framed construction with clay tiled roofs and the external walls clad in shiplap boarding. There are concrete ground floor slabs throughout and with reference to the geological map for the area ground conditions should be favourable comprising sandy clay throughout.

4.0 **FINDINGS**

For ease of reference each primary element of the structures will be considered in turn and salient points noted in relation to condition and possible need for repair.

4.1 ROOF

The roof to the main enclosure is formed from fink trusses at 600mm centres clear spanning the building. This installation is fairly modern and in good structural order. The felt, battens, and tiles may all remain in place and the timber has been tanalised before erection.

The smaller enclosure has a more traditional cut and pitched roof formed from 100mm x 50mm timber joists and rafters all at 400mm centres. Once again, the finishes are in good order and no work is anticipated in this area.

4.2 WALLS

The walls to both buildings comprise 100mm x 50mm C24 studs at 400mm centres with an external shiplap boarded finish. At low level, below the wall plate, there is a small masonry wall incorporating a dpc. The wall structure and finishes have been well maintained and require no structural attention.

4.3 GROUND FLOOR SLAB

There is a substantial concrete slab within both areas which in our opinion may be retained and reused to suit.

4.4 FOUNDATIONS

A single a trial hole was formed revealing traditional brick spreader foundations some 600mm in depth and 500mm wide. From an appraisal of the present and proposed loads we are of the opinion that the existing footings may be reused without any upgrading.

5.0 **METHOD STATEMENT**

In any proposed conversion it is anticipated that a suitably experienced contractor who has prior experience of similar conversions is engaged. The method statement will be produced by the contractor, but approved by all interested parties. The fundamental approach to a project of this nature is to ensure the temporary and long-term stability of the buildings while the work is underway. The need for temporary supports, suitable sequences of work, and consideration of the existing building elements is paramount. The project will be a

team effort to achieve a successful outcome and the present involved parties are suitably qualified to achieve this end.

6.0 **CONCLUSIONS**

As previously stated, the purpose of this report was to establish whether the existing building could be converted for domestic use and qualify such conclusions with details of general repair. From our observations we are of the opinion that the proposed conversion is a viable undertaking and that the building is sound and not in need of major reconstruction and can remain standing as existing throughout the construction process. The drawings produced to date, including the existing and proposed layouts, can be considered as a logical and sympathetic use of a redundant farm building without involving any major or substantial construction works. As with any scheme of this nature certain elements of the work will be required to meet the building regulation requirements but these will be concerned with finishes and insulation.

**Trevor Cossey BSc (Hons) C Eng. MIStructE**