Barn at Birchenfields Farm Birchenfields Lane Dilhorne – DG/0616/01

Structural Appraisal

Of

Barn

At

Birchenfields Farm
Birchenfields Lane
Dilhorne
ST10 2PX

For

Mr & Mrs Handley
Birchenfields Farm
Birchenfields Lane
Dilhorne
ST10 2PX

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2 June 2016

General Description

The property is a single storey building of masonry/block construction with a mono pitch roof covered with asbestos cement profiled sheet and is attached to a concrete portal framed barn set south west of the site.

The Topography of the site is such that generally it falls away from the barn towards the boundaries at the west. The areas immediately adjacent to the property are generally set to hard landscaping to the west and soft landscaping to the east

External Inspection

Front Field Elevation

This Elevation faces into the field area and is of masonry/block with profiled steel sheet infill to the numerous openings

To the right it butts against the portal frame barn and to the left it faces the site boundary. It is perforated at by a series of doorways of various dimensions giving access into the interior accommodation.

A Trial Pit was excavated to the centre of the elevation. This revealed a substantial concrete footing 250mm thick at a depth of approximately 600mm sitting within a clay formation

Left Hand Gable Elevation

It is again of masonry/block construction without perforations.

Right Hand Gable Elevation

There is no current left elevation as the barn is connected to the adjacent concrete portal frame barn

Rear Elevation

This Elevation is some 400mm below the level of the ground to the rear for most of its length. A trial pit was excavated to the left end of the elevation and revealed that the wall is carried on concrete blocks to a depth of 600mm sitting on a 250mm deep concrete strip foundation sitting within clay subsoil

The elevation is of masonry/block construction and is perforated Level by two windows and two doors. There is a vertical thermal crack adjacent a pier near the centre of the elevation.

Rain water goods are in position at eaves level discharging into a rain water trough set to the left hand corner which passes through the barn and discharges via a large water butt to the surface water drain

Roof

The line and level of the roof throughout were observed to be true and sound although the asbestos cement roof covering is leaking in several locations.

Internal Inspection

The internal area comprises a full length compartment with a ground bearing concrete floor. The compartment is subdivided by part width and height masonry/block partition walls forming animal pens. The walls are not load bearing and may be safely removed.

The roof structure is fully visible and comprises timber purlins set into steel beams supported on masonry/block piers and appears to be in good condition. The purlins in turn directly support the asbestos cement roof covering.

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The walls are of painted masonry/block. There are indications of longstanding thermal movement in the rear wall but this is not considered significant and is not uncommon in block construction.

Conclusions/Recommendations

From the observations made the property was not suffering from subsidence, settlement or heave at the time of my inspection.

I can also state that I am satisfied that the building is suitable and sufficiently robust enough for the proposed development.

I would recommend that a formalised schedule of works should be drawn up which encompasses such items as the following but not limited to the same: -

- Introduction of new suitably insulated ground floors throughout, the existing foundations are at depth which allows such work which may be required by the building regulations inspector to be undertaken without disturbing the existing structure.

- Insulation of the external walls by the Introduction of suitably insulated internal wall coverings.

- Replacement of the roof covering, (the planned profiled steel sheet with insulation and will not exceed the adequacy of the existing roof timbers to support any increased loading which will be minimal).

- Locally reduce the levels of the land to the rear and the Introduce a damp proof course.

Notwithstanding the points above, the building is of substantial construction. I am satisfied that the structure is sufficiently robust and entirely suitable for conversion with limited amounts of work required.