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DAIRY FARM – WEOBLEY
Report : Timber Frame Survey – Thursday 29th May 2008.

Introduction
This survey was commissioned in response to Mr Robert Walker's letter of the 28th April 2008. (A copy of the letter is attached to the report.)

In his letter Mr Walker raised concerns over the proposal to replace a portion of the building and requested a "timber – by – timber survey of condition" and a statement of significance and justification, as currently required with new applications.

Although the application refers to the proposal to replace what Mr Walker refers to as "rear wing framing" the survey, whilst concentrating on that aspect, was broadened to include the whole range of buildings in order to establish the context of the application.

Description & Interpretation

The range of buildings comprises a farmhouse and attached barn. (Please refer to sketches: DF – MH – 01 to 03 and to the attached photographs.)

The farmhouse (Bays A to D) was only viewed from outside of the building. Externally the building exhibits the common characteristics of a two bay open hall with a cross wing (or Solar) to one end.

The large panel framing and large arched braces evident on the cross wing is an early framing style indicating an erection date of early C15 for that part of the building.

The end cross frame visible externally has a pair of massive crucks; the configuration of the internal cross frame to the hall was not investigated.

A floor frame has been inserted into the open hall; common practice in C16, early C17.

The three bay barn (Bays E to G) is not attached via the framing to the rear of the hall and cross wing; rather the two separate buildings have been joined with masonry to form a kitchen, probably early C20.

The framing to the barn is much later than the hall and cross wing, conceivably as late as late C18, early C19 and is of much lower quality than the hall and cross wing.

Framing to the Barn

The frames were originally made using reclaimed timbers from at least one earlier building and some new timber. There are many redundant joints in the frames:

- Passing brace housings and peg holes on some first floor studs;
- Mortises with peg holes in various locations on the frames

Further evidence of the re-use of material is the misalignment of redundant purlin housings in the cross frame numbered "Frame Two" in the sketches provided. The position of the housings would have produced an asymmetric purlin configuration for the frame. The adjacent cross frame, which would have supported the other end of the purlin, has a normal configuration: the purlin could not have been positioned horizontally. A different portion of a principal rafter has been used to produce the truss portion of the cross frame.

Elm struts have been introduced into position in cross frames two and three, probably at the time of their fabrication, to provide support to the principal rafters below the lowest pairs of purlins.

The jowls to the bay posts are crudely fashioned.

There is no evidence of hewing or carpenters marks anywhere on the timbers. None of the timbers, with the exception of the common rafters, show any "tool marks" to indicate their means of conversion. (The marks on the common rafters indicate that they were produced by pit sawing.)

The quality of timber used in the barn is low:

- Numerous large knots present - particularly in the bay posts;
- Large areas of sapwood on many of the timbers.

Ranges of buildings in continuous use for long periods of time are often adapted as the use of different areas of the buildings change. This range of buildings is no exception: major and some minor alterations to the frames have taken place:

- The ground floor framing to cross frames one and two, together with the ground floor framing to side frames five and six in bay E have been removed entirely when the kitchen was introduced into the building.
- The girding beam and sill beam to cross frame three have been removed.
- Mid – rails have been removed to form openings.

The frames in buildings that have been poorly maintained, or have been clad with unsuitable materials suffer.

All of the external frames to the barn exhibit extensive decay in the form of insect infestation and wet rot. (The moisture content of the timbers in these frames is likely to have been elevated by water penetration through the weatherboarding, aiding decay, which has been increased further by the poor quality of the timber used in the frames.)

The number of emergence holes present in the timbers to the external frames, together with the almost total lack of structural integrity of the sapwood remaining, indicates an extensive infestation of wood-boring beetle. (No bore dust was found but this does not necessarily indicate that the infestation is dormant, as the building is extremely cluttered, dirty and dusty.) The most likely culprits are the Lyctus powderpost beetle or the Common furniture beetle.

One mid-rail and one bay post are particularly badly affected by wet rot, probably Phellinus contiguus – a type of white rot, which is active and spreading.

The timbers to cross frames two and three away from the external elevations of the building show fewer signs of insect infestation.

There is some structural failure and deformation present in the building:

- One principal rafter in cross frame two has failed completely below the point load exerted by the purlins it is required to support.

- A strut in cross frame three is split through from face to face for well over half its length.
- The bay post to cross frame three in frame six has "racked" by approximately 400mm in the direction of the side frame, rendering its joint to the wall plate useless.
- The existing purlins are under-sized and have deformed even under the light load exerted by the corrugated iron roof covering.

The single lower bay to the end of the three bay barn is made from a mixture of reclaimed timbers from earlier building(s) and modern materials, probably early C20, and was not surveyed.

Conclusions

The hall and cross wing building appears to be a typical example of a C15 open hall house with a later floor insertion made exceptional by the crucks visible at the lower end of what was the open hall. (It might be that the internal framing is also of high quality.)

The three bay barn is typical of numerous other better examples (condition, carpentry, markings and timber quality) in Herefordshire and is of no particular historic or architectural merit.

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