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Spencer Jones,
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LL13 0UL.

Ref: 124 - Letter Report - Pickhill Farm, Talwrn, Cross Lanes
Date: 31 May 2024

by email

Re: STRUCUTRAL INSPECTION OF FARMHOUSE

Dear Sirs,

We were instructed by yourself to carry out a Structural Inspection of the farmhouse at the facility. Our instructions cover an inspection of the property with a view to confirming whether defects noted internally and externally are significant, to confirm its overall condition and to make recommendations for repair where appropriate.

The property is a detached farmhouse arranged over two storeys. The original part of the property is of timber framed construction with brick infill between dating back to the 17th century. An outrigger dating back to the 19th century has been constructed from rubble masonry walls on the north elevation. A basement is provided under the northern outrigger. The roof over the entire property comprises slated finishes supported off traditional purlin and rafter construction. Metal tie bars have been installed to both side elevations of the outrigger to restrain the movement in the end gable. Both ties are anchored at first floor level.

Various traditional brick outbuildings and modern steel framed barns are provided to the north and west of the farmhouse, all of which are outside the scope of this report.

The property currently carries a Grade II listing.

This report will seek to determine the severity of any defects, their probable causes and any necessary repairs. Our inspection comprised a visual inspection of those elements of the property visible from within and without with the use a ladder where required. Testing requiring the use of specialist equipment or training, e.g. electrical systems, gas appliances, water systems, etc., has not been undertaken. Manhole covers were not lifted and drains were not tested. No excavations were undertaken to uncover buried elements and any notes on the condition of these elements are made based on the visible condition of the property.

The inspection was carried out during the morning of Friday 24th May. The weather during the inspection was warm and dry. The inspection was concentrated in the uninhabited areas on the eastern side of the property.

Internal Inspection

First Floor

Severe cracking is apparent to wall finishes within the outrigger at first floor level. Several cracks are apparent in both side elevations coincident with the tie bar anchoring points. The cracking was noted as up to 10mm wide. Various repairs have been carried out in the past. However, it is apparent that the movement in the gable elevation is progressive.



Severe cracking to western elevation at first floor.



Severe cracking to eastern elevation at first floor.

Gaps were apparent between the floor finishes and the gable elevation and the chimney breast and the ceiling. The gaps were noted as up to 60mm wide.



Gap between floor finishes and gable wall.



Cracking in plaster finishes and gap between chimney breast and ceiling.

The floor within the room shows a general slope at 3% towards the gable elevation increasing to 5% local to the wall. The side elevation walls were noted as generally plumb. The gable elevation shows an outwards lean at up to 8%.

Evidence of weather penetration is apparent within the original part of the property. Staining to ceiling finishes was noted within one of the bedrooms. Slight rot to timbers was also noted locally which would suggest that the defect is longstanding, although the area was dry at the time of inspection.



Weather penetration through roof finishes.
NOTE: slight rot to timber framing.

Ground Floor

Severe cracking is apparent to wall finishes within the outrigger at ground floor level. The cracking is concentrated close to the gable elevation. The cracking was noted as up to 5mm wide extending through areas of previous repair. Various repairs have been carried out in the past. However, it is apparent that the movement in the gable elevation is progressive.



Cracking to western elevation at ground floor.



Severe cracking to eastern elevation at ground floor.

Severe rot was noted to timbers at low level within the original part of the property. Spalling plaster finishes and degradation to brickwork was also apparent at low level throughout. These defects are due to rising damp. Brickwork of this vintage is particularly susceptible to rising damp due to its soft and porous nature. In one location, the brickwork was noted as loose.



Severe rot to timber framing at low level.



Degradation of brickwork at low level due to rising damp.
NOTE: brickwork loose locally.

No access was afforded to the basement at the time inspection due to the water level being approximately 300mm below floor level. It is understood that a previous owner of the property would occasionally pump out the water through an external manhole.

External Inspection

The elevations to the original part of the property comprise brickwork to full height with inset timber framing to one elevation whilst the outrigger comprises rubble masonry to full height. The roof is finished with slates. Windows and doors are single glazed in timber frames. Tie bars have been installed to the sides of the outrigger anchored at first floor level.



Western Elevation to outrigger.

It would appear that the metal ties installed have only been partially effective. The ties across the gable elevation are not sufficiently stiff to prevent bulging with the movement at first floor level particularly severe. The movement at first floor has resulted in the wall extending beyond the slated finishes by up to 70mm. Cracking up to 22mm wide was noted in the wall below the lower tie.

Both elevations show numerous cracks between 1 and 3mm wide. The thickness and construction of the wall would appear to be distributing the overall movement more evenly externally than internally.

The movement in the gable elevation appears to be progressive.



Cracking to western elevation adjacent to quoin stones.



Wall extending beyond roof.

Where exposed, the timber framing is showing evidence of general degradation with minor section losses. However, at low level a total section loss is apparent.

A trial hole has been excavated locally to determine foundation type and depth. The excavation has confirmed that the elevation is supported off a brick spreader at 300mm below ground level. The formation comprised a silty sand and was noted as soft immediately below the foundation.



General degradation of timber framing.
NOTE: missing section at low level.

Externally the original part of the property appeared to be in fair condition with slight distortions apparent to the elevations both vertically and laterally.

The roof over the property shows evidence of slight dipping in the ridge line which is indicative of creep in timbers and roof spread. Evidence of widespread slipped and repaired slates are indicative of life expired fixings.



General View of original part of property.

Discussion and Conclusions

The overall condition of the property is considered to be fair with timber framing and the outrigger considered to be poor.

Severe cracking is apparent internally and externally within the outrigger which has resulted from movement in the end gable elevation. Due to flooding within the basement, it was not possible to confirm the nature of the foundations to the outrigger. Significant vertical subsidence has occurred causing a rotation of the gable elevation. A previous attempt to stabilise the gable have been only partially effective. Tie bars anchored at first floor level have been installed. However, the movement in the wall has resulted in large forces in the ties which are causing the side elevations to separate at the anchoring points. The movement is significant and progressive. It is understood that a previous owner would occasionally pump water out of the basement through an external manhole. The abstraction of water may have removed fines within the underlying formation and exacerbated the movement. The depth to the water table would make an excavation to a significant depth tricky. The depth of the basement and the condition of the outrigger walls also significantly increases the risk of collapse during repair making an insitu repair impractical.

Rot and section losses are apparent to the timber framing of the original part of the property. The section losses are particularly severe at ground floor level where total section losses are apparent. The plaster finishes and brickwork infill to the framing also show severe degradation with several areas noted as loose. The defects are due to rising damp which is prevalent in properties of this vintage where brickwork is particularly porous. Brickwork can be rebuilt and timber sections inserted, however, it is likely that the rising damp issue will return in the future requiring further repair.

The roof alignment shows slight distortions between supports which is not untypical in properties of this vintage. Staining was apparent internally with areas of rot to timbers indicating that the weather penetration is long standing. Numerous repairs to the slated finishes are apparent externally indicting that the fixings are life expired.

In order to restore the property into a habitable condition and safeguard its long term durability, extensive and intrusive repairs will be required. This may result in a considerable proportion of the original fabric being replaced.

We therefore believe that the property is beyond economic repair and should be de-listed and demolished.

Should you wish to discuss this matter do not hesitate to contact the undersigned.

Yours faithfully,

[redacted]

Andrew Hannett
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