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SE08/0856/F

Mr J Joseph
Highdern
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Dear Mr Joseph

Re: Redundant building at Glen Kerne, Leys Hill, Kerne Bridge, Nr Ross-on-Wye, Herefordshire. HR9 5QT

I confirm your instructions for me to inspect and report on the structural condition of a redundant building on the above site. I report my findings and recommendations as follows:

1.0 Preamble

1.1 The subject property is a two-storey barn which is built into a slope that provides access from an upper and lower ground level. The building was probably constructed circa 1900, at the same time as the cottage named 'Glen Kerne' that stands within the same site boundary. The basic structure of the barn comprises solid stonework walls beneath a duo pitched and gabled roof structure that is covered with corrugated metal sheets. Internally, there is a suspended timber first floor structure and a ground floor area finished with part natural earth and flagstones.

1.2 The objective of this report is to determine the structural adequacy of the barn for conversion for domestic/habitable usage.

1.3 This report is based on an inspection of visible, exposed and accessible areas of the structural fabric of the building, and was carried out from ground levels and with the aid of a step ladder. No attempt was made to remove material or objects that obstructed the visual inspection of any area of the building. Foundations and sub-soil conditions were also not inspected or investigated.

1.4 I visited the site on 22 September 2007, to carry out my inspection. The weather conditions at the time of the inspection were dry and overcast.

2.0 External Observations

2.1 The southwest elevation exhibits: a vertical crack in the mortar joints above the right-hand door opening at ground level, eroded mortar joints also at ground level, and timber decay to door frames and lintels. The stonework wall appears erect and structurally sound.

2.2 The southeast elevation exhibits a slight bulge in the centre of the stonework wall and a vertical open joint at the junction with the adjacent buttress wall. This wall has also been re-pointed throughout. Despite the bulge, the stonework wall appears structurally sound.

2.3 The northwest elevation exhibits: vegetation growth to the stonework, a vertical crack in the mortar joints above the right-hand door opening at ground level, a missing brick from the arch above the upper window opening, eroded mortar joints, and timber decay to door/window frames and lintels. The stonework wall appears erect and structurally sound.

2.4 The northeast elevation exhibits extensive vegetation growth that restricted an inspection of the stonework beneath. The timber door frames also exhibits decay and insect infestation. Despite the restricted viewing, the stonework wall is considered to be structural sound.

2.5 Viewing of the roof covering was only undertaken from the surrounding ground levels and was restricted by overhanging tree branches. The roof covering and structure appears to provide sufficient weather protection.

2.6 There are mature trees within a few metres of the northeast and southeast elevations of the barn, with branches that overhang parts of the building. Adjacent to the northern corner of this building there is a stonework boundary and retaining wall that supports an adjacent single track road. The continuation of the southwest walling beyond the building line forms an earth retaining wall that returns in a south-westerly direction going away from the building.

3.0 Internal Observations

3.1 Inspection of the ground floor area was undertaken by torchlight and was restricted by stored material against the inside face of the southeast elevation. All the perimeter walls appear to be erect and structurally stable except for the inside face of the southeast wall that exhibited loose and missing stonework.

3.2 The first floor timber structure has partially collapsed in areas and is currently being propped of the ground floor. The ground floor has a natural earth finish in part with flagstones elsewhere that sound rather hollow in places.

3.3 Due to the dangerous condition of the first floor timber structure, inspection of this area was only possible from the door opening within the southwest elevation. With the use of torchlight all the perimeter walls appears to be erect and structurally stable.

3.4 The purlin roof structure and corrugated metal sheet covering appears to provide sufficient weather protection to reduce deterioration of the building fabric. Close inspection of any timber members at first floor level was not possible.

4.0 Conclusions and recommendations

4.1 The following recommendations are confined to the structural aspects of the existing barn building, for converting into habitable usage in accordance with Local Planning and current Building Regulation approval/requirements.

4.2 Although the existing roof covering and structure provide sufficient weather protection for the building's current usage, a new roof structure and covering will be required for domestic and habitable usage of this building. The new roof structure should also be used to provide lateral restraint to the existing masonry walls at that level, as required by current Building Regulation requirements.

4.3 The localised collapse of the timber first floor structure is due to the decay of the timber members that were originally in contact with the perimeter walls. A new first floor structure will be required for the future use of the building. The new floor structure should

also be used to provide lateral restraint to the existing masonry walls at that level, as required by current Building Regulation requirements.

4.4 It is recommended that all timber lintels, tying/bearing members built into the stonework walls are replaced if found on close inspection to be structurally unsound.

4.5 The decay of existing first floor timber members has probable resulted in the loosing and displacement of the stonework to the inside face of the southeast walling. It is therefore recommended that the internal masonry to the southeast walling is repaired. Elsewhere to the stonework walls, it is recommended that all vegetation growth is removed and the walls and any cracks re-pointed.

4.6 A new ground floor structure will be required for domestic and habitable usage of this building. The construction of a new floor structure will require the removal for the existing flagstones and thus investigation of the underlining subsoil. The level of the foundations to the existing walls should be determined prior to the any excavations for a new floor structure. Undermining the existing foundations should be avoided unless recommended by a civil/structural engineer. It is also recommended that the professional advice from a civil /structural engineer is sought with regard to any proposed reduction of the existing ground levels in the vicinity of the existing boundary and earth retaining walls.

4.7 There are no apparent structural signs of defects to the building that may be attributed to the close proximity of the mature trees noted previously. It is recommended that the professional advice from an arboriculturist is sought to determine measures to be undertaken to prevent these trees from causing any damage to the building.

4.8 Subject to the above recommendations, the structural condition of the existing barn building is considered to be suitable for conversion to domestic/habitable usage.

I trust that the above report is self explanatory and sufficient for your present needs. However, should any clarification or further assistance with this project be required, please do not hesitate to contact me.

Yours sincerely

A M Wallace

A. M. Wallace