

Introduction

At the request of the owners Mr and Ms A Townsend the subject property was visited on 15 December 2015 to carry out a visual structural inspection.

Mr and Ms A Townsend have owned the property since 1992. Planning permission is to be sought for conversion of a range of single storey barns into holiday accommodation to be run in conjunction with the campsite business. The owners requires advice as to structural stability and viability. NB Building Regulation approval has neither been sought nor given.

This report is restricted to comments upon the major structural elements of the building. The inspection was visual only and no obtrusive works were undertaken, any elements that were not visible were not inspected and all work was undertaken from ground floor level.

Property

The property which is located in the Northumberland National Park is approximately 150 metres from Stonehaugh village.

The property is a range of single storey agricultural buildings. The barns are attached to an existing dwelling and 2 storey hayloft. The house and adjacent two storey original hayloft were previously a Forest Enterprise workshop and depot. There was a change of use to residential in 1992 and the hayloft is now in use as an ancillary store to the house. The remaining four barns are single storey separated by 500mm stone walls each with a separate entrance. The construction is 550mm thick stone/rubble with large quoins generally stone lintols and sills and roofed in slate. A very small stone offshoot (2.5 sq metres) at the northeast of the range was removed in 1993 as it was unsafe, it had no roof and no foundations.

An electricity supply is available from a sub-station 50metres to the south. A main water supply pipe is within 20 metres and serves the house and campsite

to the north west. There is an adopted foul drain 40 metres away and a branch from that which serves the farmhouse.

Observations

Walls

The walls show no significant signs of movement in the form of cracking, bellying, bowing or leaning .

The mortar has t been patched or replaced to the hayloft. Otherwise it is soft and friable. The mortar is partly eroded and can be dislodged to a depth in excess of 20mm.

As no investigation has been undertaken into the condition of the foundations it should be assumed that either there are no foundations throughout, however there is evidence that the wall are bedded directly onto rock since in some areas indicated on the plan these rocks are visible above floor level.

The stone quoins, kneelers, lintols and cills are all sound.

A small stone off shot to barn-3 is partially demolished with no roof and the walling in a particularly poor state.

Doors and Windows

The existing doors are generally in poor condition. There are no windows. In any event current Building regulations Part L make extremely unlikely that any doors could be reused.

Five of the original heavy oak doors remain but only one of these is in a reasonable state and capable of repair. There are no wooden frames only the original stone rebate detail is which are damaged.

The double doors and frame to Barn-2 recent framed ledged and braced door it and the frame are in fair to poor condition.

Roofs

The roofs show little sign of sagging at the ridge and are of a traditional construction with timber rafters supported on purlins on intermediate simple tied

trusses. These trusses are at around 2.3 metres centres. In all barns single storey and at first floor level the underside of the ties are sufficiently high to allow adequate headroom.

The structure is covered with slate with some moss and lichen growth some slates missing. Re-roofing is required although most slates can be re-used.

Gutters And Downcomers.

There are few areas where these are functioning properly; generally they are either in a state of complete disrepair or missing.

Ground Floors.

There is a mixture of concrete, earth and stone cobbles. There is no evidence of any damp proof membrane and no evidence of significant dampness

Existing Lintols

Outer stone lintols appear sound and internal timber lintols although undersized by modern standards are in reasonable condition. There are two openings on the east elevation, to Units 2 and 3 which have been increased in size and timber external timber lintols inserted which are inadequate. The roof above the opening to Unit 3 is showing signs of distress and has been propped onto the internal timber lintol; there being no outer stone lintol

Electrical Installation services etc.

There is some very old electrical wiring in Units 2 and 3 which was not checked and so far as we are aware there are no other services within the complex.

There are two lighting points and power outlets in the hayloft which were installed in 1995 by the current owners. In 2001 the controller for the dump load from a wind turbine was installed in the hayloft.

Conclusions

Despite their age and the suspected lack of foundations the barns are in reasonable condition.

Recommendations

An **area** of walling around the off shot to will need to be taken down and rebuilt Barn-3. In any event excepting the hayloft the **whole stonework requires re-pointing** in lime mortar.

To comply with current Building regulations Part L all **external walls** will need to be drylined incorporating insulation and vapour barrier on either galvanised metal or treated timber battens.

For **all roof areas** insulation and vapour barriers will be required to comply Building regulations Part L. New **rainwater drainage** is required. Additionally stepped flashings required Hayloft/Barn 1.

Ground Floors require the addition of gas(radon) and damp proof membranes and substantial insulation in order to comply with Part L, Building regulation.

The **external timber lintols** to Units 2 and 3 should be checked and reinforced by the addition of internal galvanised steel.

New **windows and doors** are required to comply with Part L Building Regulations.

A complete new **Electrical, heating and plumbing services installation** is required throughout.

Missing **downcomers and gutters** should be replaced.

For and on behalf of

Earthsense Architects

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