

Structural Engineers

184 Kellaway Avenue
Bristol
BS6 7YL

Telephone: 0117 9421199
Email: terryv@tmventham.com
Web: www.tmventham.com

T M Ventham
Practice

**STRUCTURAL REPORT A STONE BARN
ON KINGMORE FARM OLD
GLOUCESTER RD WINTERBOURNE,
BRISTOL, BS36 1RT**

For MR + MRS HOWES

Ref: 11299

June 2023

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Background Information and Instructions

Mr + Mrs Howes own Kingmore Farm. There is a redundant stone barn on the farm and they would like to convert that to residential accommodation.

David James and Partners chartered surveyors have been appointed to deal with the planning matters in respect of this change of use. Toby Reed of David James has asked T.M Ventham Practice to inspect the premises and provide a report on its structural condition. The structural report will be used to accompany the planning application.

Inspection

The barn was inspected by Terry Ventham on Wednesday the 14th June 2023. This is a stone building with a tiled roof and it is attached to the side of the farm house. See photo 1857



Photo 1857

Front Elevation

There are a large pair of wooden doors on the front of the building. There is a brick arch over the top of the pair of doors. Other than the brick arch, the rest of the elevation is in stone. The brick arch is flat across the middle section.

Also, the top of the arch is covered by a fascia board. However, the arch appears to be in good condition. See 2152



Photo 2152

The stonework is approximately coursed, it is in reasonable condition but it would benefit from being re pointed. See 1911, 2111 + 2132



Photo 1911



Photo 2111



Photo 2132

The roof has some slight undulation but it appears to be in reasonable condition. See photo 2031



Photo 2031

Side elevation

This is a stone elevation except for the top of the gable which is in brick. There is a lean to section on the back of the building and there is a straight joint between the two suggesting that this was a later addition.

There is also an area of stone in the middle of the gable that looks like an infill. There may have been a window or a louver vent panel. The wall is generally in good condition, but it would benefit from being re pointed. See 2307, 2346, 2401 + 2458



Photo 2307



Photo 2346

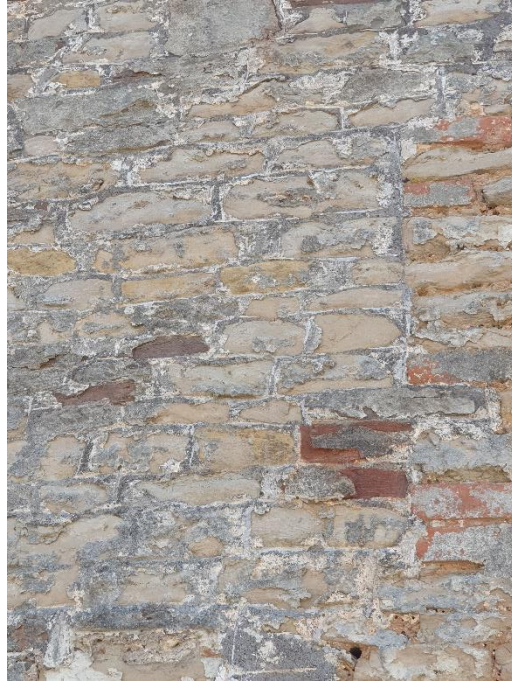


Photo 2401



Photo 2458

Rear Elevation

This is also in stone. The tiles roof extends down over the lean to section, the upper part of the roof is in good order but there are some undulations in the surface of the area of roof over the lean to. See photos 2520, 2537 + 2616.



Photo 2520



Photo 2537



Photo 2616

The section of wall close to the house is in brick. The wall is generally in good condition. There is a small pier in the middle section that has been displaced slightly.

Interior

Inside the main part of the barn there is a timber mezzanine floor over part of the barn. See 2246



Photo 2246

The gable adjacent to the house is in stone, there is a bricked in opening in the middle. There are some near vertical cracks in the joints to the stonework in this wall. The bottom section has been rendered and this is in good condition. See photo 2301.



Photo 2301

The roof consists of rafters on to a single purlin per slope. The purlins are supported on main trusses and the roof is boarded under the tiles. See photos 2732, 2800, 2747 + 2337.



Photo 2732



Photo 2800



Photo 2747



Photo 2337

This is all generally in good condition.

The wall between this room and the lean to section is in stone. There is a large brick arch in this wall also. Half of the arched opening has been infilled with stone but the brick arch can be seen to be substantial. This is directly opposite the arch in the front elevation see photos 2436, 2446, 2452 + 2421



Photo 2436



Photo 2446



Photo 2452



Photo 2421

The brick arch in the front wall can be seen in more detail from the inside. This can be seen to be substantial and in good condition. The mezzanine floor is constructed with large timber joists and some thick planks. See photos 2528 + 2543



Photo 2528



Photo 2543

This is in sound condition.

Lean to interior

The brick arch in the internal wall is partially visible in here see photo 2710



Photo 2710

Part of the arch is obscured by the rafter. The top of the rafters are supported on a wall plate which is consistent with the lean to being a later addition. There is a wooden door in half of the arch opening. The stonework is in good condition internally. See photos 2716, 2840 and 2854



Photo 2716



Photo 2840



Photo 2854

The lean to roof has central purlin and rafters, it is also boarded under the tiles. There is a deflection in the purlin and some of the rafters are badly deflected see photo 2728



Photo 2728

The purlins are fixed to a larger rafter in the center of the roof see photos 2819 + 2929



Photo 2819



Photo 2929

Comments

The walls to both parts of the building are all in sound condition, there are some minor vertical cracks and joints that should be tied across with “Helibar” or similar reinforcement. However, there are no signs of subsidence or serious distortion. The large brick arches need to be treated carefully but they are sound and they are providing adequate support to the roof. The roof of the main barn is generally sound and well-constructed, the roof of the lean to needs some improvement but a couple of extra main rafters and possibly some extra purlins would make it work and preserve the bulk of the existing structure.

Conclusion

With some simple repairs and maintenance this barn is capable of being made suitable for residential use with an extensive future life span.



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