

WRD

WRD Engineers

Civil & Structural Consulting Engineers

WRDELW73274A\210603 sgh GSI (1/7)
3 June 2021

E V Hall (Farms) Limited
Dollerys Farm
West End Green
Stratfield Saye
READING
RG7 2DP

The Stables, rear of 60
The Avenue
SOUTHAMPTON
SO17 1XS

tel: 023 8072 0770
enquiries@ wrdengineers.co.uk

Att: Mr Nick Hall
Ref:

GENERAL STUCTURAL INSPECTION

The Barn, Parsons Farm
West End Green
Stratfield Saye
READING
RG7 2DP



M D Royall ACGI BSC CEng MICE MFPWS
for and on behalf of **WRD Engineers Limited**

tel: 07973 396 171
email: royall@ wrdengineers.co.uk

WRDELW73274A\210603 sgh GSI (2/7)
3 June 2021

1.0 BRIEF

- 1.1 Scope and limitations:** This is a general structural inspection report limited to a visual examination of the loadbearing elements of the property to assess their structural adequacy and condition. The inspection was undertaken externally and internally, subject to access being available. We have not moved heavy furniture, lifted fitted floor coverings, or made exploratory holes unless noted in the report. The report has been prepared in accordance with the addressee's request and therefore any liabilities which may arise are restricted to the addressee.
- 1.2 Orientation of the property:** For the purposes of this report, unless otherwise stated, the front elevation is considered to be that which faces the public road or path from which access to the property is given and all references to left and right are given as if viewing a plan of the property with the front elevation located to the bottom, and the rear elevation located to the top of the plan.
- 1.3 Inspection:** The property was inspected by M D Royall ACGI BSC CEng MICE MFPWS on 1 June 2021.

WRDELW73274A\210603 sgh GSI (3/7)
3 June 2021

2.0 OBSERVATIONS



- 2.1** The barn is a large, steel, portal-framed building. It is about 12m wide by 36m long. The external walls are blockwork to half-height with a variety of cladding materials above and the roof is corrugated, fibre cement sheeting. It is estimated to be around 50 years old.
- 2.2** To the right side is a similar sized barn with a pre-cast concrete, portal frame and the space between these two has been covered over. It is proposed to demolish the concrete framed barn and link.
- 2.3** The barn structure comprises steel, portal frames spanning about 12m, with 203 x 133 UB columns and 178 x 102 UB rafters on a 13° pitch. The frames are spaced around 4.5 to 4.6m apart, there being 9 frames enclosing 8 bays.



WRDELW73274A\210603 sgh GSI (4/7)
3 June 2021

- 2.4 To the front and rear bays there is diagonal roof bracing to the rafter slopes formed with 80 CHS sections.
- 2.5 The columns are true and plumb, the rafters are straight and undistorted, and there are no signs of structural movement or structural distress.
- 2.6 The steelwork is painted with a red lead type protective coating but there is extensive failure of the paintwork exposing the bare steel. Surface corrosion of the steel is present throughout but no deep corrosion that would affect the structural integrity is present.



- 2.7 The roof cladding is supported by 180mm x 70mm timber purlins spanning 4.5m between the portal frames and spaced about 1.2m apart. All the roof purlins are present and in good condition with no significant sagging evident and no structural damage or concerns evident.
- 2.8 The roof sheeting comprises corrugated, fibre cement sheets. All are in good condition, intact and in place. At the ridge there are cut-outs to provide ventilation.

WRDELW73274A\210603 sgh GSI (5/7)
3 June 2021

- 2.9** The external walls to the front, left side and rear comprise 215mm thick, hollow, concrete blocks to a height of about 1m with 4 course (900mm) of 130mm thick, hollow, concrete blocks above.
- 2.10** The blockwork generally appears to be in a good structural condition. It is clearly built off a foundation (rather than off the floor slab) and there are no signs of any significant settlement, subsidence or other foundation movement to it.
- 2.11** Some local damage has occurred to the blockwork along the left side. The blockwork to the 3rd bay appears to have suffered impact damage from the inside, pushing the wall out, with slippage on the bed joints of around 30mm and a slight outward bulge. This section needs to be rebuilt.



- 2.12** To the 5th and 6th bays along the left side part of the top course blockwork has been displaced and some blocks are missing. Again this appears to be due to impact damage from the inside and merely requires to be rebuilt as necessary.



WRDELW73274A\210603 sgh GSI (6/7)
3 June 2021

- 2.13** To the rear a few blocks adjacent to the entry gate post are missing, again as a result of internal impact damage.



- 2.14** Along the left side, above the blockwork wall, there is plastic netting fixed in place with timber supports.
- 2.15** To the front and rear, above the blockwork wall, there is galvanised, corrugated steel sheeting.
- 2.16** To the left side there is a 130mm thick, hollow, concrete block wall around 750mm high with a cast in-situ concrete topping increasing the height to about 0.9m. Above this it is open to the covered area and the adjacent barn.
- 2.17** The floor slab is of concrete construction, utilised by heavy farm equipment, and is all in good condition. The floor has an inbuilt slope from the right side down to the left side of around 150mm to 200mm over the width of the building - . Otherwise the floor is flat throughout with no signs of any significant settlement and no significant cracking.

WRDELW73274A\210603 sgh GSI (7/7)

3 June 2021

3.0 CONCLUSIONS AND RECOMMENDATIONS

- 3.1** There are no signs of any significant settlement, subsidence or other foundation movement to the barn structure or the barn floor slab.
- 3.2** There are no signs of any significant structural problems (other than the impact damage noted above) to the superstructure of the barn.
- 3.3** In our opinion the barn structure is suitable for conversion to residential use.

END OF REPORT