

# Report on a Structural Inspection

**Project: Existing Stable, Structural Condition Survey  
Sawmill Barn, Main Street, Hawksworth, Notts**

**For: Kate Storey**

Prepared by: DJ Wright BEng (Hons) CEng MIStructE

Date: 14<sup>th</sup> October 2020

Project No: 20-118

Revision: A – Minor Amendments



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## Executive Summary

### Site Address

The Sawmill, Main Street, Hawsworth, Nottingham

### Description

A single-storey timber framed stable building, with infill 100mm thick internal perimeter blockwork wall panels, built off a substantial reinforced concrete ground floor slab.

The roof is covered in corrugated fibre cement cladding panels and the external walls are clad in horizontal timber cladding boards.

Requirement for Survey	Primary Comments
The owner wishes to convert the building into a single dwelling.	<p>The building is of a robust and permanent structural condition which is considered fit for retention and conversion into a dwelling.</p> <p>With minimal works being required to the existing structure of the building (all of which is to be retained) the building presents in a suitable condition to enable a domestic conversion to be undertaken.</p>

### Survey conducted by:

Daniel J Wright; Director; BEng (Hons) CEng MStructE

## **1.0 INTRODUCTION**

- 1.01 We were instructed by the owner Kate Storey, to conduct a structural survey and assessment of the existing agricultural stable building with a view to converting the building into a dwelling for her own occupation.
- 1.02 The proposed works will comprise minimal works limited to the insertion of insulation, ceilings, services, windows and doors within the existing openings, all as reasonably required to re-use the building as a dwelling.
- 1.03 The inspection was undertaken on the 2<sup>nd</sup> October 2020. The weather at the time was dry and sunny.
- 1.04 Dragon Structural Ltd undertook a visual inspection during a site walk over and the main observations are noted in the following report.
- 1.05 For the extent and limitations of this report please see the 'Notes & Limitations' in Section 5.0.
- 1.06 Photographic records are contained within Section 6.0.

## **2.0 EXTERNAL OBSERVATIONS**

- 2.01 The building lies within a rural setting, fronting onto a gravel paved area sitting behind Main Street.
- 2.02 The land behind the building consists of a menage and fields beyond.
- 2.03 To the north of the building are existing dwellings.
- 2.04 Surrounding site levels are typically flat.
- 2.05 The building is rectangular on plan and comprises horizontal timber cladding boards between structural timber posts and structural timber stud framing set behind.
- 2.06 The structural timber posts sit within steel shoes to reduce the likelihood of timber decay above ground level. No signs of timber decay were noted to the timbers.
- 2.07 Large barn door openings are present in the front and gable elevations with small window openings to the front and rear elevations.
- 2.08 The roof is covered in corrugated fibre cement cladding.

## **3.0 INTERNAL OBSERVATIONS**

- 3.01 The structure is formed with 5No. duo-pitch timber trusses spanning between timber posts at each side of the building.
- 3.02 Timber purlins supporting the roof sheeting span between the trusses.

- 3.03 The internal wall perimeter comprises 100mm blockwork panels built between the timber posts and tied with stainless steel frame cramps. The walls extend up to eaves level.
- 3.04 Where window openings are present, pre-stressed concrete lintels have been used to support the blockwork over.
- 3.05 The perimeter walls are built off the reinforced concrete floor slab.
- 3.06 We understand that the floor slab comprises a reinforced concrete slab below ground of minimum 150mm thickness. This has been overlaid with a further concrete slab as the wearing surface for the stable

#### **4.0 DISCUSSION, CONCLUSIONS & RECOMMENDATIONS**

- 4.01 We were instructed by the owner Kate Storey, to conduct a structural survey and assessment of the existing stable building with a view to converting the building into a single dwelling.
- 4.02 The building is of a robust and permanent construction and in a good structural condition.
- 4.03 The proposed works will comprise minimal works limited to the insertion of insulation, ceilings, services, windows and doors within the existing openings, all as reasonably required to re-use the building as a dwelling.
- 4.04 Any thermal upgrade works will comprise the provision of insulation to the building envelope, undertaken from within the building.
- 4.05 New insulated suspended ceilings can be supported via existing and new internal walls and in turn off the concrete ground slab.
- 4.06 Therefore, there will be no additional loadings placed upon the existing roof structure and the structural roof timbers will remain fit for purpose and be retained.
- 4.07 Timber preservative spray treatment of the structural timbers should be undertaken prior to covering over with internal finishes.
- 4.08 Therefore, the building is of a robust and permanent structural condition which is considered fit for retention and conversion into a dwelling.

Survey and report prepared by:

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14<sup>th</sup> October 2020

## 5.0 NOTES & LIMITATIONS

The Company would be pleased to discuss and advise on any points of difficulty arising out of this appraisal.

Please note that this appraisal is presented on the basis of the following conditions.

- We were required to undertake a visual structural appraisal of the property only and prepare a report outlining our findings/observations.
- The external elevations were inspected from ground levels only. Interior ceilings and walls were inspected from floor level only.
- No inspection has taken place of lintels, floors, roof construction, etc. unless as stated in the body of this appraisal.
- No destructive testing was undertaken as part of this survey.
- We have not inspected woodwork or other parts of the structure, which are unexposed or inaccessible and are unable therefore to report that such parts of the property are free from rot, beetle, or other defects.
- We have not attempted in this appraisal to establish whether or not the construction of the property complies with current Codes of Practice or Building Regulations.
- We have not exposed or tested drains, examined bearing strata or foundations or cut into the fabric of the building, except as specifically stated in the body of this appraisal.
- The areas we have appraised are those inspected in accordance with your instructions. If there are any omissions or if you believe that we have misinterpreted your brief, please let us know immediately.
- Where we have drawn your attention to items that are outside the scope of our brief, these items should be regarded as observations and not a full and complete assessment of any problems that may exist.
- This appraisal shall be for the private and confidential use of the Client for whom the appraisal is undertaken and should not be reproduced in whole or relied upon by third parties for any use without the express written authority of the Client and Engineer.

## 6.0 PHOTOGRAPHS

### 6.1 North Gable Elevation



### 6.2 Front Elevation (East)





6.3 Rear Elevation (West)



6.4 South Gable Elevation



6.5 Internal View



6.6 Internal View Towards Rear



6.7 Internal View on Roof Truss and Purlins



6.8 Timber Knee Bracing



6.9 Steel Shoe to Timber Posts

