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STRUCTURAL ENGINEER'S REPORT

FOR

TINTWISTLE PARISH COUNCIL

COUNCIL OFFICES

SEXTON STREET

TINTWISTLE

SK13 1JN

Ref: AJK-27066-002 SER

Date: 24-11-2023

1. INTRODUCTION

1.1 Client

Tintwistle Parish Council
FAO Ms Charlotte Strickland

1.2 Location of Property

Tintwistle Parish Council, Council Offices, Sexton Street, Tintwistle, SK13 1JN

1.3 Purpose of Report

We are specifically instructed to carry out a structural inspection and prepare a report relating specifically to the structural condition of the property.

1.4 Scope of Report

The inspection carried out was visual only. We did not cut into the fabric of the building or excavate trial holes to expose the existing foundations or bearing strata. Neither did we lift manhole covers to inspect drains, move heavy or fixed items of furniture, or turn back floor coverings. Woodwork and other parts of the structure which were covered or inaccessible were not inspected and we are therefore unable to report that any such part of the property is free from defect. All crack widths are approximate.

General directions and floor slopes are given as facing the front of the property. Individual observations are given as facing the particular wall or elevation referred to.

1.5 Date of Inspection

Mr Andy Kuehl attended the property on Thursday 9th November 2023.

1.6 Description of property

The property is a single story modular building. We estimate the structure is approximately 30+ years old.

On plan, the property is rectangular in shape. It comprises two separate structures which are connected via a single doorway in the centre of the property.

Construction comprises a flat roof comprising timber frame construction covered in felt. External elevations are constructed of low level blockwork and timber framework above finished with plywood cladding. Internal walls are constructed of timber studwork. The ground floor is constructed of suspended timber joists.

The property is situated on a sloping site, sloping down from front to rear. There is a public car park at the front and bowling green / park to the left hand side and rear.

2. INSPECTION

The following relevant points are noted.

EXTERNAL

Roof

1) There is moss growth throughout the roof finishes.

2) There are localised patch repairs to the felt covering and some areas have unadhered and there appears to be water trapped below the felt.

3) There are localised undulations throughout the left hand structure and some areas feel springy / unstable underfoot.

Front elevation

1) External elevations are finished with plywood sheeting. There is localised decay throughout the plywood sheeting and the timber structure behind. This is typical throughout the property.

Left elevation

1) At low level, the external walls are constructed of blockwork.

2) On the far left hand side of the elevation, there is a diagonal crack, up to 15mm wide, in the blockwork. The cracks extends up and left from external ground level and continues up the full height of the blockwork.

3) Bed joints slope down from right to left.

4) In the centre of the elevation there is a timber staircase. The vertical timber posts are decayed at the base.

Rear elevation

1) On the far right hand side of the elevation, there is a tapered diagonal crack, up to 15mm wide at the top and 5mm wide at the bottom, extending up and left from external ground level.

2) There is a rainwater pipe (RWP) located on the far right side of the elevation.

3) Bed joints slope down from left to right.

4) There is a vertical crack, up to 2-3mm wide, on the left hand side of the elevation.

5) There are a number of large trees to the rear of the property.

6) There is a steel staircase in the centre of the elevation. The steelwork is corroded and laminated throughout. There are holes in the top of vertical posts.

Right elevation

1) There is decay throughout the plywood panelling.

INTERNAL

2) Finishes generally comprise emulsion paint applied directly to plastered surfaces.

3) Finishes are generally free from evidence of any significant cracking.

4) The exception to this is some sporadic cracking, 1mm wide, above the door opening between the two structures.

5) There is evidence of water ingress in the rear right hand corner of the right hand structure.

6) The ceiling in the rear left hand corner of the main hall has locally dropped. There is a timber beam that extends across the width of the hall. This has snapped immediately below the dropped section of the ceiling.

7) There is a notable deflection throughout the ground floor joists. This is most significant in the male toilet, the rear right hand corner of the main hall and immediately adjacent to the front entrance door into the right hand structure.

8) The floor generally slopes down towards the rear left hand corner of the property.

3. CONCLUSIONS & RECOMMENDATIONS

We are specifically instructed to carry out a structural inspection and prepare a report relating specifically to the structural condition of the property.

Having carefully considered the findings of our visual inspection of the property and the contents of the previous sections of this report, we draw the following conclusions and recommendations.

Externally, there is decay throughout the external plywood finishes and exposed timber structure. There is cracking in the low level blockwork and bed joints slope down towards the rear left hand corner of the property.

Internally, the ground floor slopes down towards the rear left hand corner of the property.

The sloping nature of the floor joists and bed joints, and the pattern of cracking to the blockwork is indicative of subsidence movement.

In our opinion, the most likely cause of this is the RWP located on the rear left hand corner of the property. The RWP discharges directly onto the external ground which maybe be causing a localised softening of the bearing strata and subsequential movement of the foundations.

Alternatively, a review of the British Geological Survey maps indicates that superficial ground conditions in the area comprise diamicton. In our experience, the makeup of diamicton can vary significantly and it is not uncommon to find inclusions of clay. Therefore, the water demand of the trees, which are located to the rear of the property, may have resulted in shrinkage of the sub-strata resulting in movement of the foundations.

It is not possible to diagnose the cause of subsidence movement on the basis of a single visual inspection. Further investigations would be required by the excavation of trial holes to establish the nature and depth of the existing foundations and bearing strata and to expose the foundations.

As noted above, there is timber decay throughout the property. We suspect that this extends well beyond the areas that are visible but in order to fully assess this, and confirm a scope of remedial works, further investigations would be required.

However, we suspect that such investigations are likely to confirm that extensive remedial works are required in order to restore structural integrity. It is very possible that you could end up removing and replacing more of the existing structure than can remain. Therefore in our opinion, the property is most likely beyond reasonable economical repair and therefore consideration should be given to removing the property in its entirety and replacing it for new, which should include new foundations.

We trust the contents of this report are satisfactory for your current requirements, however if you have any queries or wish to discuss matters further, please do not hesitate to contact the writer.

Kind Regards

Andy Kuehl IEng MICE

For and on behalf of R Rhodes & Partners (Consulting) Ltd