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STRUCTURAL APPRAISAL REPORT

Existing Telephone Exchange Building;-
Common Road,
Whaplode Drove,
Spalding,
Lincolnshire.
PE12 0UF

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Property;-	**Telephone Exchange Building ;-** Common Road, Whaplode Drove, Spalding, Lincolnshire. PE12 0UF.	**Instructed**;- Dec 2025 **Survey & Report by**;- JC Consultancy Limited
Client:-	**Miss R Baker** c/o **JC Architectural Consultant**, Rose Villa, Main Road, Spalding Lincolnshire. PE12 0PS	**Checked by**;- J. Ellington BSc. CEng MIStructE, FRSA, MIoD **Authorised By;-** J. Hicks BEng(Hons) MSc. PgDipCHE.,MIoD
Reference:-	JC/25/12/8380	**Issued**:- Jan 2026

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The Institution of Structural Engineers

STRUCTURAL APPRAISAL REPORT,

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Our Ref;- JC/25/12/8380

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1.0 BRIEF

1.1 JC Consultancy Limited was requested by Miss R Baker to assess and comment on the structural condition of an existing telephone exchange building at Comon Road, Whaplode Drove, Spalding, Lincolnshire. PE12 0UF.

2.0 INTRODUCTION & SCOPE

2.1 The building is located in a rural location, South of the village of Whaplode Drove in Lincolnshire. The building is accessible off the highway known as Common Road.

2.2 The client has instructed a structural appraisal report is to be carried out in order to assess possible options for future development, change of use and conversion. The enquiry was received from the client's agent, JC Architectural Consultant in December 2025. The instruction to carry out the structural appraisal was provided by the clients' agent via email correspondence dated 13th January 2026.

2.3 This report is to be regarded as confidential to the party to whom it is addressed, and it is intended for the use of that party only. No responsibility will be accepted to any other party in respect of its contents in whole or in part. Prior to the report or any part of it being reproduced or referred to in any documents, our written approval as to its form and content must first be obtained.

2.4 JC Consultancy Limited visited the property on 16th January 2026, in order to carry out a structural appraisal survey.

2.5 The weather conditions at the time of the visit was overcast but dry, after periods of heavy rainfall.

2.6 The purpose of this report is limited to an opinion on the structural condition of the building. We have only reported upon those structural defects that materially affect the stability of the building and provided that these defects are reasonably detectable at the time of our inspection. Whilst we have used all reasonable skill and care in preparing this report it should be appreciated that we cannot offer any guarantee that the buildings will be free from future defects or that existing ones will not suffer from further deterioration. This report is limited to commenting on elements of the structural fabric only. No further assessment will be made to elements elsewhere in the property. Comments will relate to structural condition and performance of elements only.

2.7 This report does not contain observations, comments or recommendations to any non-structural items including, but not limited to drainage, electrical, heating and plumbing services, timber work and any decorative finishes / plasters.

2.8 Decay associated to damp, fungal attack, insect infestation or contamination (including the presence of asbestos materials or similar) is outside the scope of our appointment or report. Any reference to decay associated to damp, fungal attack, insect infestation or contamination to either structural or non-structural items are observations only. As such we recommend that further advice is sought from specialists in the fields of damp, fungal attack, insect infestation or contamination in order to guarantee peace of mind from these potential defects.

2.9 The inspection was of a visual nature only. There has been no opening up works involved in this investigation.

2.10 Any part of the structures that were hidden, covered or otherwise inaccessible, have not been inspected or commented upon. We therefore cannot guarantee that any such parts are free from defect. Some areas of the elevations could only partially be inspected due to vegetation growth, and the roof structure could not be inspected due to boarding present internally.

2.11 The performance of the existing ground strata, general ground conditions and foundations may be referred to within this report; however, the ground conditions and foundations have not been fully inspected or investigated as part of this survey. Therefore, comments made will be based on analysis sought from indicative desktop sources including but not limited to the 'British Geological Society'. These sources generally provide sound interpretation, however local anomalies can occur, and as such we cannot guarantee their accuracy.

2.12 The observations and defects noted within this report should not be read as a comprehensive inventory of each and every single item witnessed during our survey. Instead the records should be taken as an indication of the condition of the outbuildings in general and should demonstrate the likely defects that may be present elsewhere in areas of the fabric that have not been surveyed or recorded.

3.0 GENERAL DESCRIPTION

3.1 The property under consideration is a small, traditionally constructed, rectangular shaped, former telephone exchange. The building is single storey with a duo-pitched, hip ended roof structure.

3.2 The building is understood to have been originally constructed by the General Post Office during the mid 1930's. The General Post Office was responsible for the design and erection of many of these small buildings across the country to accommodate telephone line exchanges serving smaller rural communities. Standard building types were developed during the 1920's to cope with increase demand for telephone services across the country, and many surviving examples can still be found today.

Following its construction in the mid 1930's, we understand this particular example came into service as a Rural Automatic Exchange around 1938 and deceased operation in 1983. To the best of our understanding and belief the property is not Listed.

3.3 The general construction of the building under consideration consists of; -

Roof

A Rosemary style roof covering over presumably a traditional timber hand cut roof, consisting of a collared purlin roof, with rafters, purlins and ceiling joists. The underside of the ceilings are close boarded. The roof incorporates a wide overhang soffit detail at eaves to all elevations.

Walls

Cavity wall construction, consisting of clay masonry brick units to the outer leaf, laid stretcher bond in cement mortars, a small cavity, and an inner leaf of perforated clay blocks.

Ground Floor

A concrete slab is present forming the ground floor, which contains some localised recessed pits.

Foundations

Foundations had not been exposed but are presumed to be a concrete flat slab system, similar to a raft foundation, typically associated with these former GOP buildings, or a concrete strip foundation system.

3.5 Published Geological records show the building to be within an area where the soil sequence consists of a solid formation of Oxford Clay Formation (Mudstone) at depth overlain by a considerable thickness of Tidal Flat Deposits (Clays & Silts).

4.0 OBSERVATIONS

4.1 The wall construction to the building is in a reasonable condition, but has suffered a degree of localised movement causing isolated cracks and slight distortion of the long elevation masonry panels.

4.1.1 Front Elevation (West facing)

This elevation contained a centrally located window opening. The wall panel was free from any major defects. No significant cracking noted externally or when viewed internally. No evidence of any bulging masonry or lateral movement to the panel noted.

4.1.2 Rear Elevation (East facing)

This elevation contained an offset located entrance door opening. The wall panel was free from any major defects. No significant cracking noted externally or when viewed internally. No evidence of any bulging masonry or lateral movement to the panel noted.

4.1.3 Side Elevation (South facing)

This elevation is a continuous full-length panel of approximate 12m length, with no openings present. No evidence of any bulging masonry or lateral movement to the panel noted.

When viewed along the bed joints of this elevation there was a slight downward slope towards the East facing end of the building. Estimates suggest that the East end of the building may have settled in the order of 20-30mm.

This movement is reflected at the 'hinge' point, whereby some localised vertical cracks in both the outer leaf and inner leaf were noted at approximately midpoint of the long elevation panel. Externally the crack travelled vertically from dpc level to eaves level, slightly tapering at its upper levels. The current width of the crack was estimated at a maximum of 3 - 4mm, although there was evidence of previous repointing to the fracture. Internally the cracking was reflective within the inner leaf blocks, with similar crack widths apparent. Further comparable cracks was present elsewhere within the inner leaf to this panel.

4.1.4 Side Elevation (North facing)

This elevation is a continuous full-length panel of approximate 12m length, with two window openings present. No evidence of any bulging masonry or lateral movement to the panel noted. Similar to the South facing elevation, there was a slight downward slope towards the East facing end of the building. No significant cracking was noted at the mid point of this elevation, however cracks were noted below and above the two window openings. Externally the cracks travelled vertically from dpc level to sill level, and above the window at lintel bearing location. The width of the cracks was estimated at 3 - 4mm. Internally the cracking was reflective within the inner leaf blocks, albeit the crack was located adjacent to the window reveal. Internally the widths of the cracks were estimated at 8 – 9mm worse case, with others being in the order of hairline to 3 – 4mm in width.

4.2 A tree, species unknown, with an estimated height of 5 – 6 metres is growing immediately adjacent to the North facing side elevation. The location of the tree coincides with the area of cracking that is deemed most severe within the masonry panel, which is located adjacent to the right-hand side window opening.

4.3 Internally, the existing duo pitched, hip ended roof structure could not be inspected as close boarding ceiling finishes are present with no access hatch available. Based on observations made externally, the roof appears to be structurally stable but may need localised attention / repair during any conversion process. There was some dishing to the roof slope noted within the rosemary tile roof finish, and some minor ridge sag along its length suggesting that some timbers may need replacing or strengthening and allowance should be made for this.

4.4 The floor slab appeared reasonably level, and had little evidence of major fractures to those areas that were not covered by finishes. The former recessed pits, presumably originally housing equipment and ducting remained present.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 The existing building is in a reasonable structural condition considering it is approaching 100 years old. The building is long-standing and none of the structural defects highlighted during our survey suggests that its overall structural stability is at risk.

5.2 The buildings basic, rectangular shape, and single storey height results in it being a reasonably robust structure which can be seen to have performed well under loading during its lifetime. Historically, the buildings constructed by the GPO were designed and built to be longstanding and to a reasonably high level of workmanship.

5.3 Notwithstanding the above, the building has suffered from a degree of movement in various locations, some of which may be related to movement of the foundation system. A reasonable amount of foundation movement is expected for this geographical area, and as such considering the age of the building, the observed extent of movement is unsurprising.
Much of the movement witnessed during our survey is considered historic and longstanding. Some isolated areas appear more recent and may be progressive in nature whilst catalysts of movement remain.

5.4 Typically the main catalysts of movement on these types of structures, aside general ground conditions, is the effects of trees on the foundations, the softening of subsoils and subsequent movement of foundations due to defective discharge of surface water, and thermal movement of the masonry panels themselves.

The close proximity of the tree noted will undoubtedly contributed to the movement observed in this panel and its removal should be undertaken as soon as possible.

The effectiveness of the current rainwater discharge is unknown. Based on the age and lack of maintenance endured by the building it is extremely likely that the drainage is inefficient resulting in overflowing gutters, blocked gulleys and discharging of water close to the walls of the building. Over time this results in the softening of the silt based soils which can lead to the type of settlement movement observed. Allowance for the drainage systems to be replaced should be made to ensure suitable discharge away from the building.

The long masonry panels forming the North and South facing wall panels are in the order of 12.0m long with no provision for movement joints noted. Thermal expansion of the brickwork and associated fractures resulting from thermal movement is expected on a structure of this arrangement. A number of the fractures observed during our survey are likely to have been contributed by the effects of thermal movement.

5.5 Following the removal of the tree and replacement of any defective drainage systems, it is unlikely that any further significant movement will occur.
Due to the small footprint of the building, any additional loading being placed upon the walls and foundation system within any proposals being considered is likely to be minimal. As such we see no reason at the time of writing why the building will be subject to any long-term progressive movement that will cause building instability in the future as a result of a proposed conversion as long as the catalysts of the former movement are attended to.

5.6 Following the removal of the tree and replacement of the drainage systems, the performance of all walls can be improved by low key crack stitching using the 'Helifix' masonry repair system, which involves installing remedial 'Heli-bar' rods into the bed joint of the masonry at regular vertical centres over any open cracks. This can be conducted both externally and internally.

5.7 Based on observations made externally, the roof appears to be structurally stable but may need localised attention / repair during any conversion process. Following opening up works some timbers may need replacing or strengthening and allowance during any conversion should be made for this. Whilst reference to damp is outside the scope of this report it is possible that the roof structure has suffered from a degree of water penetration over the years. As such it is essential that advice and any required treatment from specialists in the field of damp and decay should be carried out in conjunction with the conversion, in order to ensure that damp and timber decay are not trapped within the fabric post completion.

5.8 In final conclusion, having considered the existing structural arrangement identified during our visual surveys, we are satisfied that the existing building is structurally robust and appears suitable for a conversion without the need for significant demolition, rebuilding rehabilitation. However, a series of actions as described and the implementation of low key structural repairs will be required as part of any conversion in order to enhance the performance and longevity of the structure.

Finally, we confirm that this report is for advice and guidance only, and that consideration of any conversion proposals should be done only following liaison with the Architect, and guidance / Approval from the Local Authority Planning Department.

JC Consultancy Limited
Consulting Structural & Civil Engineers

Jan 2026

5.0 PHOTOGRAPHS

Photograph # 1 (Front – West facing elevation)

Photograph # 2 (Side – South facing elevation)

Photograph # 3 (Side – North facing elevation)
(

Photograph # 4 (Side – North facing elevation / Rear – East facing elevation)

Photograph # 5 (Side – South facing elevation)

Photograph # 6 (Side – South facing elevation)

Photograph # 7 (Side – South facing elevation – Crack - high level)

Photograph # 8 (Side – South facing elevation – Crack – mid height level)

Photograph # 9 (Side – South facing elevation – Crack - low level)

Photograph # 10 (Typical Internal – Side – South facing elevation)

Photograph # 11 (Typical Internal – Side – South facing elevation)

Photograph # 12 (Typical Internal – Side – South facing elevation)

Photograph # 13 (Side – North facing elevation – Adjacent Tree – Crack - high level - above window)

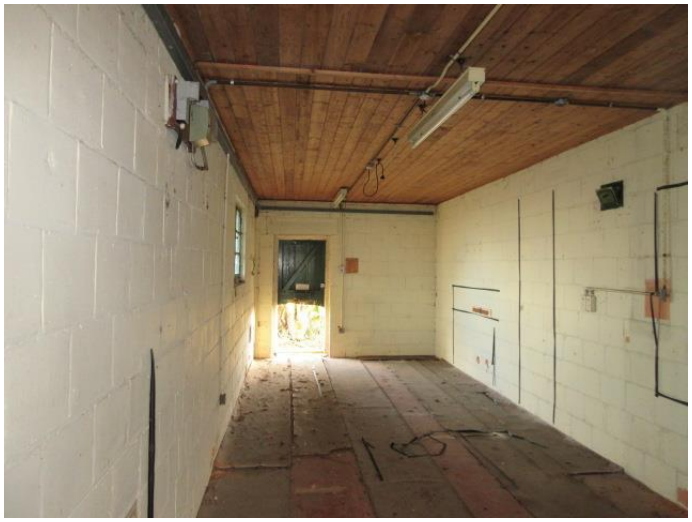
Photograph # 14 (Side – North facing elevation – Adjacent Tree – Crack - mid level - below window

Photograph # 15 (Side – North facing elevation – Adjacent Tree –- low level)

Photograph # 16 (Typical Internal – Side – North facing elevation – Adjacent Tree – Crack - high level - adj window)

Photograph # 17 (Typical Internal – Side – North facing elevation – Adjacent Tree – Crack - mid level - below window)

Photograph # 18 (Typical Internal – Side – North facing elevation – Adjacent Tree – Crack - high level - adjacent window)



Photograph # 19 (Typical Internal)

Photograph # 20 (Typical Internal - Underside of Ceiling)

Photograph # 21 (Typical Internal – slab with former recess / pits still present)

**********END OF REPORT**********