

STRUCTURAL INSPECTION REPORT

Project Ref: Edge Gate Farm, Newhey

Date: 25 August 2022

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None

REVISION HISTORY

Issue	Date	Status	Prepared By	Signature	Checked By	Signature
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2	25/08/2 2	Second Issue	Adam Sedgwick BSc(Hons) CEng MStructE		Sherman Cheung MSc(Hons)	

1.0 INTRODUCTION

- 1.1 Edge Structural Design Limited was appointed by Peter Thornton to undertake a structural inspection of Edge Gate Farm, Newhey.
- 1.2 The purpose of our inspection and report is to determine the suitability of the building to convert into a dwelling.
- 1.3 We understand our report will form part of a planning submission to the local authority to consider the conversion as set out in Class Q (permitted development).

2.0 SURVEY INFORMATION

- 2.1 A representative of Edge Structural Design Limited visited the site in July 2022.
- 2.2 The weather at the time of our inspection was dry and sunny.
- 2.3 The survey comprised a non-intrusive internal/external visual inspection of all reasonably accessible areas.
- 2.4 Photographs were taken and are included throughout this report.

3.0 LOCATION AND SETTING

- 3.1 The building is located on Edge Gate Farm which is off Rochdale road in Newhey, Rochdale (identified in red in Photo 1).



Photo 1 - Site location.

- 3.2 The building is not listed on the National Heritage List.
- 3.3 The building is a single storey agricultural building current being used as storage for the farm.



Photo 2 - Agricultural Building view from northwest

4.0 OBSERVATION

4.1 EXTERNAL OBSERVATIONS

- 4.1.1 The building is constructed from a steel portal frame clad with steel roof cladding, the walls clad to upper half and the lower half constructed from masonry.
- 4.1.2 The building is rectangular on plan approximately 22m long by 12m wide and 4m high to the eaves. It has a duo-pitched roof.
- 4.1.3 The lower wall to the front elevation is constructed from block masonry (see Photo 3).



Photo 3 - Front Elevation

- 4.1.4 There are four doors located within the front elevation, one large roller shutter door to the left-hand side, one slightly smaller roller shutter to the right-hand side, a single personnel door to the right of the larger roller shutter door and a double door centrally located.
- 4.1.5 The lower half of the east side elevation is also constructed from block masonry. The ground levels adjacent to the building raise towards the rear elevation (see Photo 4).
- 4.1.6 The lower masonry wall to the northwest elevation is constructed in stone (see Photo 2)



Photo 4 - East Elevation

- 4.1.7 The rear elevation is similar, the lower wall constructed in blockwork and the ground level is higher. There is a retaining wall spaced approximately 1.5m away from the face of the building which retains the higher ground (see Photo 5).



Photo 5 - Rear Elevation

4.2 INTERNAL OBSERVATIONS

- 4.2.1 We were able to inspect the building internally.
- 4.2.2 The building was being used therefore our inspection was limited to certain areas.
- 4.2.3 There was a timber mezzanine floor constructed to two thirds of the building, this was used as a storage area (see Photo 6).



Photo 6 - Mezzanine Floor

- 4.2.4 The steel frame was exposed, this comprised of steel sections connected with moment resisting connections typical with this type of structure.



Photo 7 - Steel Portal Frame

- 4.2.5 Steel purlins spanned between the steel portal frames, these purlins supported the metal sheet roof.
- 4.2.6 Steel cladding rails spanned between the steel portal frames which supported the metal side cladding.

5.0 STRUCTURAL APPRAISAL

- 5.1 The class Q agricultural buildings to dwellinghouse permitted development rights allows agricultural buildings to be converted to dwellings:

a change of use of a building and any land within its curtilage from a use as an agricultural building to a use falling within Class C3 (dwellinghouses) of the Schedule to the Use Classes Order; and

building operations reasonably necessary to convert the building referred to in paragraph (a) to a use falling within Class C3 (dwellinghouses) of that Schedule.

In effect (a) allows the change of use and (b) allows operations reasonably necessary to convert the building to a dwelling, 'reasonably necessary' is a key phrase which will be discussed later in this section.

- 5.2 Class Q does not allow building operations other than the installation or replacement of:

Windows, doors, roofs, or exterior walls or

Water, drainage, electricity, gas or other services to the extent reasonably necessary for the building to function as a dwellinghouse; and

Demolition is also allowed to the extent reasonably necessary to carry out building operations listed above.

Note: text in italic taken from Planning Insight – Class Q – Agricultural Buildings to dwellinghouses 2021

- 5.3 We did not observe any structural defects with the property that would require intervention over and above what is listed within the Class Q guidance.
- 5.4 We were informed that the steel frame was supplied and erected by a reputable farming steel frame supplier Wareing buildings <https://www.wareingbuildings.co.uk/> over 20 years ago.
- 5.5 The building is located at an elevation of over 1000 feet above sea level and has stood the test of time, with weather cycles of extreme wind loads and heavy snow fall.
- 5.6 The inside of the building has been used for all these years as an agricultural storage which would apply greater loads than domestic loadings.

6.0 PROPOSALS TO THE BUILDING

- 6.1 As with most agricultural building alterations will be required to change the building into a habitable space.
- 6.2 Class Q permits reasonably necessary changes to the building to convert it into a dwellinghouse.
- 6.3 The main alterations for this development will include the following:
- Alterations to the structural openings to form windows
 - Additional windows
 - Alterations to the mezzanine floor to include staircases
 - Additional area of mezzanine floor
 - Introduction of separating walls
- 6.4 The alterations to the external elevations can be made by altering the structural support to the cladding. This is a minor structural alteration.
- 6.5 The alterations to the mezzanine floor will require additional timber joists to form the openings within the mezzanine floor to cater for the new stair opening.
- 6.6 The introduction of separating walls can be constructed off the existing concrete slab.

7.0 CONCLUSION AND RECOMMENDATIONS

- 7.1 Edge Structural Design Limited was appointed by Peter Thornton to undertake a structural inspection at Edge Gate Farm, Newhey.
- 7.2 We carried out a non-intrusive survey of the building in July 2022.
- 7.3 The purpose of our inspection and report is to determine the suitability of the building to convert into a dwellinghouse.
- 7.4 Following the review of the requirements of Class Q and our inspection we see no reason why this building cannot be converted to a residential dwellinghouse.
- 7.5 The conversion of this property will require a building regulation submission, any structural work will require structural calculations and drawings prepared along with architectural drawings and specifications.