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Our Ref: 2012D

Date: 15/03/22

## BUILDING CONDITION REPORT

FOR EXISTING BARN

AT

ORCHARD FARM

MAIN STREET

GREAT KELK

DRIFFIELD

EAST YORKSHIRE

YO25 8HN



#### **BUILDING ENGINEERS**

73 Cardigan Road Bridlington East Yorkshire YO15 3JU Telephone No. 01262 603 501

- 1 Existing Building Usage and Use Consents
- 2 Existing Services, Access and Structural Imposed Loadings
- 3 Approximate Age of Buildings
- 4 Existing Building Construction
- 5 Building Condition

**Sample Photographic Record (see archive)** 

**Information & Drawings (see planning application)** 

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#### 1 - Existing Building Usage and Use Consents

- 1.1 The application site, The Old Barn, formed part of the former Farm known as Orchard Farm, Main Street, Great Kelk. The house and barn were sold off from the farmland several years ago, and the house is now owned by the applicant as his main residence. The intention is to develop the existing barn to provide a separate, high quality residential unit. The barn has never had any other use since the farm land was sold, but it has been well maintained to a very high standard, including repairs to the brickwork over recent years (all by the previous owner) pointing, some re-roofing, and a new concrete floor.
- 1.2 It is believed that the Barn was built in the early to mid-Victoria period around the middle of the 18<sup>th</sup> Century, and has historically been in use as an agricultural barn, for arable farming, as a grain store and for general storage. From the interior it can be seen that the single existing upper floor room has also in the past, been used for grain storage, but the most recent use has been in use for general agricultural storage, and had electricity installed at an early period.
- 1.3 The Barn is not Listed and nor is the main farmhouse. The site is not within a designated Conservation Area. The proposed garden area, has previously been an orchard, but is now left to grassed lawns, with an existing gravelled car park area.

#### 2 - Existing Services, Access and Structural Imposed Loadings

- 2.1 The building already has the benefit of mains water and an electric supply. It also has all roof water taken to the existing surface water system on the site.
- 2.2 Currently access is available to the building via. the existing vehicular access from Main Street. This will be unaffected by the proposal.
- 2.3 The existing structure is generally in good condition, and was designed of a 6 bay type construction with, at both floor levels, one internal solid brick cross wall. At ground floor level, there are two bays for carriage parking, formed with a brick intermediate pillar with a large section timber beam supporting a traditional timber floor to the room above, thus being of adequate construction to carry any increased loading by way of any new timber partition walls at first floor level.
- 2.4 The proposed imposed loading of such a conversion will not impose any increase in live loads to that originally designed for.

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#### 3 - Approximate Age of Buildings

3.1 It is believed that the Old Coach House was built during the mid 18<sup>th</sup> century.

#### 4 - Existing Building Construction

- 4.1 The original building was constructed to a reasonably high standard for the period, and the existing structure is still generally in good condition but certain elements are in need of maintenance, or up upgrading and these will be commented upon later in this report. The building is certainly worthy of retention, not only for its contribution to the area, but also as a viable building project suitable for conversion to a permanent dwelling.
- 4.2 The building is of traditional solid local brick walling and generally in one brick thickness, but with the main grain store walls in 334mm thick solid brick walls, and all with a traditional timber rafter and purlin roof construction, supported on 5 number king post roof trusses and with a clay pantile roof. The trusses look in good condition but may need some attention to their ends, which are built into the brick walls.
- 4.3 As stated above the roof is formed in traditional timber rafter and purlin construction, all of which appear to be in reasonable condition, but the timbers are small and have over time, now deflected and are sagging and in need of strengthening, but with little or no sign of any active timber infestation at this time. It is believed that the roof has been recovered in new clay pantiles approximately 15-20 years ago and has also been felted under with bituminous felt, which together have maintained a waterproof covering and this together with good natural ventilation have certainly helped keep the roof and building in reasonably good condition.
- 4.4 The first floor construction is formed in  $150 \times 75$ mm (6"  $\times$  3") with little sign of any infestation, however only limited worm could be identified and certainly only amounts that are still treatable, however the floor boards may have reached the end of their serviceable life and may be in need of replacement.
- 4.5 The first floor is supported in part over the cart parking area, on two very substantial timber tie beams and the first floor external brick walls also sits on three large timber beams over the three cart parking areas, (approx. 250 x 250mm) The whole floor is tied to the walls and these timber wall beams by 4 No. 225mm dia. circular cast iron plates and with wrought iron straps screwed to the timber cross beams and to timber wall plates on the brick cross walls.
- 4.6 The brickwork over the rear door-way at ground level, is supported by a timber lintel, and the existing five window openings at first floor level have either original 100 x 75mm timber lintels (but these have at some time been replaced) or traditional brick arches.

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- 4.7 Some of the external facing bricks have perished and require chopping out and replacing, and whilst some mortar re-pointing has been done, some re-pointing is still required. Internally some ground floor walls have been either painted or lined over the years so their condition should have been protected to some degree, but these walls will require verification upon commencement of the renovation works.
- 4.8 The ground floor construction is now concrete but would probably have been of earth.
- 4.9 It is considered that, with the correct choice of matching external materials for any renovation works, this proposal can be completed to a high standard to produce an attractive residential building, which should both compliment and enhance the local Area.

#### 5 - Building Condition

- 5.1 The overall condition of the existing building is that it requires some upgrading, renovation and investment even if the building is simply to be retained, but this will be required irrespective of the future conversion or use of the building, however what can be said is that to renovate the structure and then to put it to a use as permanent living accommodation, will ensure that the building will be sustainable and can be maintained for such a use for a further period in excess of 40 years.
- 5.2 The original roof timbers should be treated against infestation and any rotten timbers replaced with similar suitable timbers. New ceiling ties in 150 x 50mm are required, and should be secured to each existing roof spar and supported from timber hangers from the ridge and purlins.
- 5.3 The original timber purlins and timber kingpost roof trusses should remain and from our inspection, appear to generally be in good order. Any new first floor walls could also be used to help support the roof structure.
- 5.4 The roof covering of traditional clay pantiles with bitumen felt underlay and appear to be in relatively good condition.
- 5.5 The external brickwork requires much re-pointing, which should be carried out in matching mortar. We would also recommend a chemical injection d.p.c be provided, with a 30 year, security backed guarantee. Perished bricks should be chopped out and replaced.
- 5.6 Most of the timber doors and windows are now unfortunately past their serviceable life and require replacement. As it is the intention to replace the windows in generally a like of like size and shape unit, these should not require major structural works, with the exception of the installation of the four new windows in the north gable, with 2 of these being at first floor.

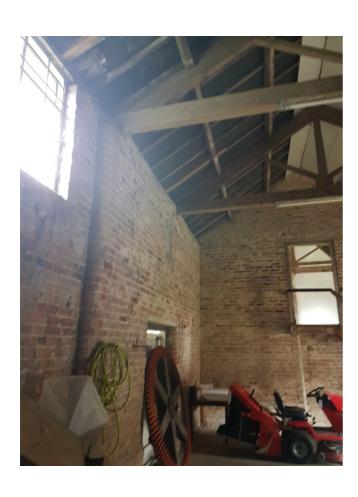
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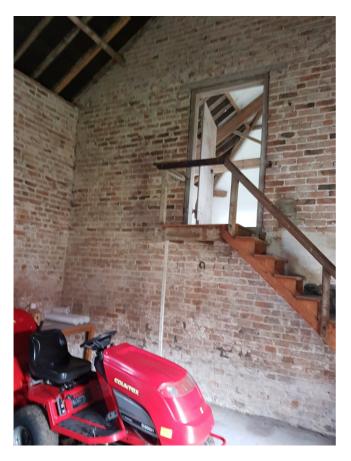
5.7 All ground floors need removing and replacing in new construction, to include a d.p.m. and suitable levels of thermal insulation, and all structural timbers in the building require timber treatment to arrest any woodworm.

5.8 At our survey a detailed record of the condition of all walls was made and recorded together with a photographic record, however it not considered necessary to repeat these in any detail here, as the general overview of the building is that it is certainly capable of conversion without any demolition or major re-building.

#### **APPENDIX A**























Report prepared by Richard Dixon MRICS MBEng Chartered Building Surveyor & Corporate Building Engineer