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SCHEDULE OF WORKS AND STRUCTURAL ASSESSMENT CONVERSION OF AN AGRICULTURAL BUILDING TO A DWELLING

PREPARED FOR

Mr William Jury

20th October 2022

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1. INTRODUCTION

1.1 We act on behalf of Mr William Jury in respect of a prior determination notification made to Torridge District Council in relation to the potential change of use of an agricultural building on land at Farthing Fields (adjacent to Craythorne Farm), Chilla, Beaworthy, EX21 5XG, into a dwelling.

1.2 This report is written with due regard to the published guidance notes relating to buildings operations allowed under the change to residential use:

1.3 Class Q part (b) covers the design and exterior of the building, therefore this report does not cover the internal works. These are all deemed to be covered within the legislation, which allows necessary works in order for the building to function as a dwelling. The updated guidance, issued in February 2018 confirms that some structural works are allowable and that internal works are not generally development. To quote:

"It is not the intention of the permitted development right to allow rebuilding work which would go beyond what is reasonably necessary for the conversion of the building to residential use. Therefore it is only where the existing building is already suitable for conversion to residential use that the building would be considered to have the permitted development right. In addition, the guidance now confirms that 'internal works are not generally development. For the building to function as a dwelling it may be appropriate to undertake internal structural works, including to allow for a floor, the insertion of a mezzanine or upper floors within the overall residential floor space permitted, or internal walls, which are not prohibited by Class Q".

1.4 Acorus Rural Property Services Ltd has been commissioned to prepare a structural assessment of the building and its potential for conversion in accordance with guidance for permitted Development. The objective of the report is to record the condition of the existing building and to make observations on the suitability of the building for conversion.

1.5 The inspection has not dealt with electrical or concealed services or other elements of the premises not visible. It is assumed that no hazardous materials or contamination is present. The report is limited to commenting upon suitability for conversion only. The barn is considered to be structurally sound and capable for conversion without significant rebuilding works as identified in detail within this report.

2. DISCLAIMER

2.1 This report is for the sole use of the named client. While it may be shown to other professionals acting for them, the contents are not to be disclosed to nor made use of by any third party without our express prior written consent. Without such consent we can accept no responsibility to any third party.

Signed ..... Josh Trump.....

J TRUMP BSc (Hons)
on behalf of Acorus Rural Property Services Limited

Dated 20th October 2022

3. GENERAL DESCRIPTION

3.1 The subject building takes the form of an duo pitched agricultural building with a lean to area (South Elevation), constructed with timber frame walls clad with Plywood sheeting and vertical timber cladding. The roof is clad with corrugated metal sheeting. The change of use proposal includes the conversion of the barn to provide a dwelling. This will be achieved within the existing external dimensions of the building.

4. CONSTRUCTION

4.1 The subject building is constructed with timber framing to the perimeter walls with purlins/rafters over to form the duo pitch main roof and rafters over to form the lean to area. The walls are clad with painted plyboard and vertical timber cladding. Both the duo pitch and lean to roofs are clad with corrugated metal sheets and fixed to the rafters. The duo pitched has GRP rooflights.

4.2 There is no evidence of deflection or decay to the frames or structure, with the entire building considered to be structurally sound. There is some surface corrosion, which is not considered to affect the structural integrity.

4.3 External walls are formed with a timber framed construction, 100 x 100mm treated timber posts, with 100 x 50mm rails fixed horizontally between posts for fixing of cladding. There are no signs of warping or movement of the walls, which are considered to be structurally sound. The walls are clad with either 12mm thick plyboarding or overboard cladding with 125 x 25mm vertical sawn boards (indicated on the existing and proposed elevations) All existing cladding is fixed to 100 x 50mm timber cladding rails The cladding has been painted externally to prolong its life together with adding to its waterproofing capabilities

4.4 The building has a concrete floor throughout the whole building.

4.5 This is a substantial building and structure that is considered to be in very good condition and is suitable for a change of use to form the new dwelling in accordance with the Class Q legislation. This report comments on the suitability of conversion and compliance in accordance with the current legislation and guidance.

4.6 This building is typical of many agricultural buildings forming a functional structure. It is generally in good order, structurally sound and adequate for its current purpose. In order to assess the suitability for conversion and the structural stability and load bearing capacity of the building with respect to its future use, the design of the proposals are fully assessed as considered below with due reference to the Class Q legislation, the proposed planning drawings and the schedule of works.

5. PROPOSED WORKS

Design Criteria

5.1 The following section of this report determines the condition of the existing building and comments on the suitability for conversion into two dwellings. It also provides a schedule of the proposed building operations.

5.2 The proposed full method of construction and detailed specification will be dealt with at the Building Regulations stage of the project, therefore this report concentrates on the current nature of the building and its suitability for conversion.

5.3 The design proposals are considered to be in accordance with the legislation, which specifically restricts new building works other than those which are considered reasonably necessary to convert the building into a dwelling. The existing building and structure is considered to be strong enough to take the loadings associated with the change to a residential use. It is proposed to remove the lean to and a small section of the main barn in order to provide suitably sized dwellings with plenty of natural light. Partial demolition is allowed by the legislation and in this instance is considered to be reasonably necessary works in order to facilitate the conversion.

5.4 Class Q part (b) covers the design and exterior of the building, therefore this report does not cover the internal works. These are all deemed to be covered within the legislation which allows necessary works in order for the building to function as three dwellings.

5.5 The new elements of the construction will be integrated into the existing building frame in order to form a homogenous structure incorporating necessary alterations in order for the building to function as a dwelling house as defined under the current GPDO guidance notes.

Design Philosophy

5.6 The proposals are to utilise the existing building frame, fabric and existing external materials and therefore ensure that the building is a conversion and not a new build. The building will converted to provide a dwelling. The existing timber frame elements will remain in place and provide the main loadbearing element, together with the existing cladding materials. The existing plyboard and vertical timber cladding will remain as a rain screen in front of new internal watertight insulated walls and so retain the character and appearance of the agricultural building. These will be repainted and improved. The proposals aim to provide a modern design utilising the existing materials and incorporation of new glazing. In order to meet the maximum size requirements for conversion under Class Q, it is proposed to for the building to remain including the lean to to the South Elevation but take down the exterior shelter on the North elevation. This will enable the formation of the dwelling with suitable natural light. New perimeter internal walls will be formed together with internal partitions within the envelope of the dwelling. The existing external cladding materials are more than suitable to be retained and are in good condition.

Walls

5.7 The existing external walls will be retained as currently constructed and upgraded to provide an insulated and watertight structure. This will be achieved by constructing a new insulated watertight timber frame consisting of 140mm partitions between the existing steel structural frame. This is the same principal as a timber frame dwelling, clad with an external facing material. The inner perimeter walls will incorporate insulation and an airtight membrane to comply with the requirements of Building Regulations and interventions to include window and door openings as indicated on the submitted drawings. The structure will be designed to comply with the requirements of the recently amended Building Regulations (June 2022).

5.8 Existing door openings will be infilled with a lightweight timber frame construction, as described above, and clad with plyboard or vertical timber. all to replicate the existing construction, which will incorporate new window and door openings as detailed on the accompanying plans. These works are considered permissible with reference to the allowable and necessary works. The building has walls to all four sides which will be retained; therefore these works are simply to infill the existing door openings as shown on the elevations.

5.9 It is considered that the proposed design and required works comply with the legislation which allows for the replacement of external walls to an extent reasonably necessary for the building to function as a dwelling. The external cladding will be retained and it is not proposed to incorporate any new structural elements. New walls will be self-supporting infill panels only and therefore support their own weight and are not intended or required to provide additional structural support to the building. The existing plyboarding and vertical timber cladding are in good condition and will be retained. These works are considered as being reasonably necessary works to provide an aesthetically pleasing exterior and conversion of an existing agricultural building.

Roof

5.10 It is proposed to retain the roof structure in its entirety including the corrugated metal sheets. The GRP roof lights will be removed and replaced with new corrugated roofing sheets to match existing.

5.11 Insulation will be incorporated beneath the roof covering with rigid PIR insulation between and under the existing frame in addition to an airtight membrane to create a warm roof. It is recommended that the sheets are painted externally with a Ruberoid paint finish to ensure a continued waterproof covering and extent the lifespan of the sheets. The majority of the roof sheets are in good condition.

Windows and Doors

5.12 Windows will be inserted into new interventions on all sides of the buildings. These will be in high thermal efficient PPC aluminium frames with double glazed argon filled units.

Structure

5.13 The existing timber framing including the rafters and purlins will continue to be the main structural elements and will take the loadings associated with the conversion of the barn into a dwelling which will include the roof and new internal dead and live loads.

5.14 The existing roof covering has a weight in the region of 12 kg/m2 . The frame and roof construction is suitably designed to support a roof covering of this nature. This is a robust structure and as there will be no significant increase in loading, the existing roof structure would be deemed to satisfy Part A of current building regulations.

5.15 Both the main steel structure and timber structure all appear to be generally good order and structurally sound and therefore suitable for the basis of a conversion.

Floor

5.16 The building is on one level with a concrete floor throughout. Subject to checking exact levels, the existing concrete floor slab will be overlaid with a damp proof membrane, minimum 150mm rigid insulation and floor screed to meet the requirements of the Building Regulations. Underfloor heating pipework will be laid on top of the insulation prior to laying the floor screed.

5.17 All internal walls will be constructed in non-loadbearing timber studwork which will be constructed directly off the floor slab.

5.18 Rainwater goods are to be new galvanized steel gutters and downpipes.

Services

5.19 The building is not provided with an electricity supply, however the mains electric supply is in the adjacent field which will allow for a electricity supply to be easily provided. The building is not provided with a mains water supply, however the mains water supply is in the adjacent field which will allow for a water supply to be easily connected.

5.20 The building does not currently have any form of drainage, so will require a new package treatment plant and designed soak away. There is sufficient land to be able to provide this. Surface water can be discharged into a designed surface water system.

6. CONCLUSION

6.1 The design of the dwelling ensures that the form and structure of the existing building has been utilised to create a change of use and a conversion with due regard to the adequacy of the existing structure. It is considered that the building is structurally sound and capable of conversion into a dwelling and that the proposals seek to integrate the new materials and method of construction to form a harmonised building. Certain works are required to comply with the current Building Regulations and to provide air and weather tightness and insulation values which will need to be detailed in full prior to commencing works on site.

6.2 It is the opinion of the verifier who has over 30 years of experience in the building industry, that the existing frame, rafters and purlins are considered to be structurally sound and capable of taking any new roof loadings all of which will be transferred through the existing structure. The existing external cladding will be retained all 4 sides of the dwelling. A new weathertight insulated structure will be built inside the retained timber frame. The roof covering will also be retained and insulated to the underside.

6.3 The introduction of internal walls will merely divide the living space to form a dwelling and as such is not development. For the avoidance of doubt, they will not be load bearing or necessary to provide structural stability, although they will naturally provide some additional strength to the building.

6.4 There are no proposed external works which can be considered as being structural or not reasonably necessary; therefore the proposals to convert this building into a single dwelling are in accordance with the Planning Practice Guidance with reference to Class Q.

6.5 The proposals represent a conversion of existing agricultural building.

6.6 With reference to Hibbitt v. SSCLG [2016] EWHC 2853 (Admin) case outlined often referred to by planning authorities, there are three components of significance when considering Class Q permitted development. The first is the assumption that the building must be capable of functioning as a dwelling. Second, that the development includes no new structural elements. Third, that the existing building must be sufficiently structurally strong to bear the loading from the external work.

6.7 Components 2 and 3 have largely been superseded by the revised 2018 guidance;

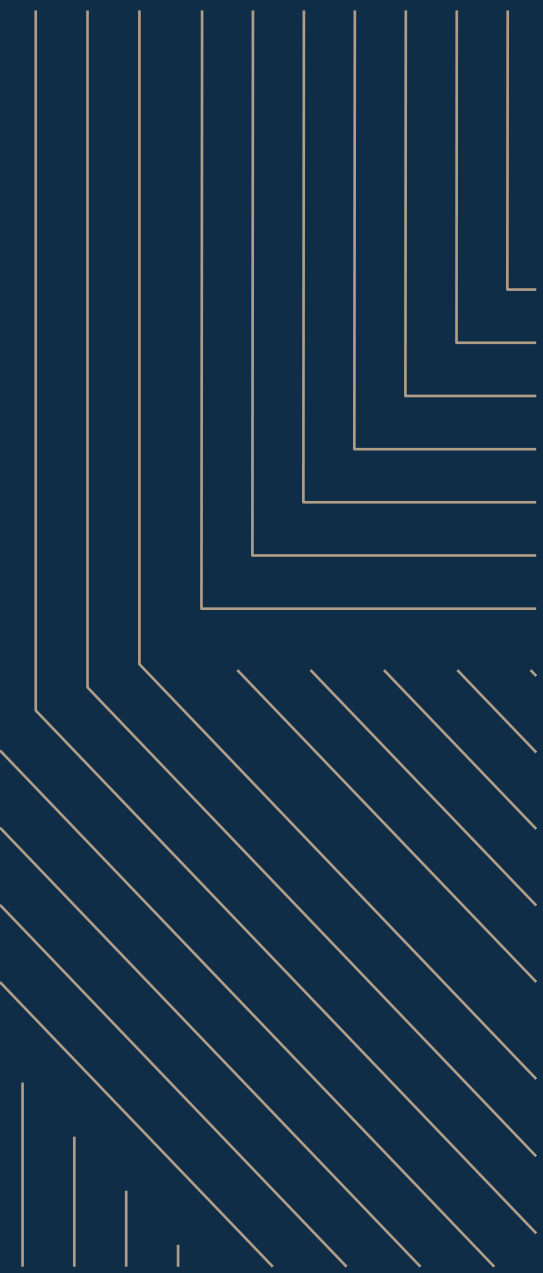
"It is not the intention of the permitted development right to allow rebuilding work which would go beyond what is reasonably necessary for the conversion of the building to residential use. Therefore it is only where the existing building is already suitable for conversion to residential use that the building would be considered to have the permitted development right.

Internal works are not generally development. For the building to function as a dwelling it may be appropriate to undertake internal structural works, including to allow for a floor, the insertion of a mezzanine or upper floors within the overall residential floor space permitted, or internal walls, which are not prohibited by Class Q".

6.8 The Hibbitt case did not seek to prescribe an exact threshold after which the nature of the work changes. This remains a matter of judgment based on the available evidence.

6.9 Sufficient evidence in the form of the design drawings, schedule of works and structural assessment conclude that the proposals accord with the legislation for the conversion of the agricultural building into a single dwelling.

7. PHOTOGRAPHS



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