

**PROPOSED RESIDENTIAL CONVERSION OF LISTED BARNs AT BEAUMONT HALL**  
**Application Ref. 19/01346/FUL & 19/1347/LBC**

**STATEMENT ON AMENDED DESIGN**

Including additional information on proposed insulation of historic building fabric.

**Introduction**

A site meeting took place in early October between Nicola Bickerstaff of Strutt & Parker, the planning officer Amy Lang, and Heritage Advisor Tim Murphy from Place Services, Essex County Council. This was followed by a further meeting on site on 9<sup>th</sup> December with the Architect, Hilary Brightman, also present. A subsequent email with further comments was sent by Mr Murphy on 22<sup>nd</sup> December. In summary, Tim Murphy has raised a number of concerns about the proposals, and the design has now been amended to address the comments made.

**CHANGES TO DESIGN PROPOSALS**

**SITE**

Tim Murphy did not support demolition of any of the unlisted 19<sup>th</sup> century farmstead buildings, and thought the later C19 division of the yard into two distinct areas should be kept.

**Kennels**

This late C19 building stands on the east side of the yard. Its original purpose is not known, but in recent years it was converted to house the dogs bred by the previous owner of Beaumont Hall. The kennels will be retained for parking and ancillary uses such as storage e.g. of bicycles, and bins.



*Kennels East Elevation*



*Kennels West elevation*

**Cartlodge**

Another late C19 open-side brick building joins the east end of the listed Byre.



*Cartlodge East Elevation*



*Cartlodge West elevation*

In our original proposal only the brick wall had been retained, but now the whole building will remain and be used to provide parking and garden storage for unit 6. However, the section of collapsed roof joining onto the roof of the Byre has been removed because it was unsafe.



*View of east end of Byre, showing collapsed section of roof, which has since been removed.*

### **Piggery**

To the north of the farmstead is a long, low building, partly brick and partly blockwork, which was used to house pigs.



*Piggery from south*



*Piggery from north*

Although new sheds and steps to access the garden of Unit 2 were located on the footprint of this building, the original proposals did not show any of the existing structure being retained. In the amended design, the brick wall of the piggery is retained along most of its length and incorporated into the new garden sheds. The blockwork will be removed.

### Division of yard

The tithe map shows the courtyard as an open space, but by 1875 the yard was starting to be divided into two separate yards for livestock.



*View of yard looking towards Byre*

The proposals had shown 18 parking spaces within the courtyard area, allowing two per dwelling plus one visitor space per dwelling. This is a generous provision, intended to prevent cars from being parked elsewhere around the site. The new courtyard layout now reflects the historic division of the yards by continuing the brick wall at a lower height to separate two distinct parking areas. Utilising the cartlodge and kennels for covered parking allows a total of 15 spaces to be accommodated within the courtyard, and Unit 1 has its own parking space adjacent to the walled garden. This redesign results in the loss of two parking spaces (in comparison with the previous scheme), but the basic provision of 16 parking spaces is still above the minimum standard of 13 spaces in total.

In his subsequent email dated 22<sup>nd</sup> December, Tim Murphy stated that resin bound gravel in the yard would not be appropriate and thought that this and the York stone landscaping should be reconsidered. The gravel has been changed to concrete with exposed stone finish. The York stone around the perimeter of the yard has been retained because we believe it is an appropriate historic material, and is needed to distinguish the pedestrian area from the parking areas.

**Garden sheds**

Garden sheds to units 1, 2 and 3 are accommodated within the footprint of the old piggery. The basic design from the original proposal is the same, but windows have been removed to simplify the appearance of these buildings. New garden sheds are proposed for units 4 and 5, alongside the access track. The design has been revised to show these two sheds combined into one building, with a smaller footprint, no windows and weatherboarded walls instead of brickwork. Unit 6 can use part of the adjoining retained cartshed to store garden mowers and equipment.

**Garden boundaries**

With the exception of the walled garden to unit 1, all garden boundaries will now be timber post and rail fencing with native species hedging planted alongside.

**CHANGES TO EACH BARN CONVERSION**

Tim Murphy did not support the adoption of the existing segmental arched window head (which can be seen on the Granary) as a detail for new openings, and considered that simple modern openings in the brickwork would be more appropriate. As a general principle, therefore, all new openings have a plain flat head and all of the glazing patterns of the proposed new windows and doors have been simplified as much as possible, although some division is required to allow for ventilation.

Individual changes to each unit are described as follows:-

**UNIT 1 (GRANARY)**

Glazing the gable triangle to the kitchen roof above the existing brick wall has been altered to brickwork as requested. A wide boarded gate now marks the existing gap between the end of the piggery and the existing wall, and this provides access into the walled garden for this unit. No other changes are proposed to this dwelling.

**UNIT 2 (17<sup>TH</sup> CENTURY BARN)**

Two new openings in the brickwork of the barn are proposed to provide some daylight into the living area. The intention is to form the openings within later C19 brickwork, where previous openings appear to have been blocked – see photographs below. The height of the openings will be kept below the level of the relieving arch, which can be seen on the north side. This is now clarified on the plans.



*Barn wall south side*



*Barn wall north side*

On the north side of the barn, the existing lean-to has been converted to provide bedroom accommodation. The roof structure will be retained, but the supporting C19 wall is in poor condition with many randomly placed openings. The previous proposals showed this wall largely rebuilt, with two of the stable door openings retained and used for bedroom windows, but with two new windows placed in the rebuilt section of brickwork. This amended design is basically the same as originally proposed, but now with the intention to retain as much brickwork as is practically possible here. The blockwork pen enclosures will be removed.



*View of lean-to on north side of C17 barn*

The lean-to to the south (yard) side will be converted to utility/boiler room and study. Again the roof structure will be retained, but here the C19 brickwork is in extremely poor condition, with much of the face of the brickwork at the lower level covered in hard sand/cement render. The revised drawings now show that the brickwork will be repaired, with bricks replaced where necessary. The existing doors will be retained, and two new windows inserted to serve the utility room and study.



*Lean-to on yard side*

The amount of roof glazing has been reduced generally throughout the design, in accordance with Tim Murphy's advice. In Unit 2, the proposed patent glazing at midstreys position on the yard side has been omitted, and the row of patent glazing on the north side (intended to bring borrowed light into the barn) has been reduced in length.

### **UNIT 3 (18<sup>TH</sup> CENTURY NORTH BARN)**

The amended design shows the midstreys open full height, with the staircase relocated to the gallery side so that it does not interrupt the appreciation of this open volume.

The row of rooflights has been omitted and replaced with one larger rooflight, which will bring light to the living space below. Following further comments made by Tim Murphy in his email dated 22<sup>nd</sup> December, the clerestory window serving the first floor bedroom has been replaced with a window to match the one below.

On the ground floor, the ensuite bathroom to bedroom 1 has been relocated into the lean-to on the yard side and will be accessed via an existing door.

### **UNIT 4 (18<sup>TH</sup> CENTURY SOUTH BARN)**

The layout of this barn was discussed at length and the resulting plan is a compromise agreed at the meeting held on 9<sup>th</sup> December. In his email of 22<sup>nd</sup> December, Tim Murphy requested further changes to the layout, asking for more vertical sub-division of the space in order to remove one bedroom at ground floor level at the south end of the barn. In our view, this reduces the appreciation of the interior volume to an unacceptable extent, and it also brings the problem of how to provide views and an alternative means of escape from the first floor bedrooms. We believe that the layout he suggested would not comply with document B of the Building Regulations and so we have retained the layout that was agreed at the site meeting. In order to address his comment about over-fenestration of the south gable end, the bedroom window has been moved back into position shown on the original scheme, on the west elevation.

The lean-to next to the midstreys to be retained, as requested by Tim Murphy, and this has been used to provide a dressing area and bathroom for one of the ground floor bedrooms. The ramp and the timber structure above this will be removed.



*Lean-to adjacent to midstreys porch will be retained and the roof rebuilt to match the existing lean-to on unit 3.*

Once again the row of rooflights has been omitted and the existing rooflight placed centrally over the midstreys will be replicated with one of slightly longer dimension.

The idea of continuing the brick arches for the lean-to along this elevation has been dropped and the amended design now shows existing timber posts replicated, with a section of new brick wall where this lean-to joins on to the Byre.



*East courtyard elevation of 18<sup>th</sup> century barns and lean-to*

The alterations to the layout of the Byre conversion to reduce sub-division have resulted in the loss of one bedroom (see notes below). Bedroom numbers are critical to the financial viability of this scheme, and in order to redress this loss, another bedroom has been included in Unit 4 in the lean-to facing the yard.

### **UNITS 5 & 6 (THE BYRE)**

The first floor structure of the Byre historically continued across the whole of the building (see David Andrew's Heritage Statement), and many of the ground floor bays are already sub-divided. We believe that the approach of keeping the first floor as open as possible to be the right one, but have attempted to answer comments made about excessive sub-division by making a number of alterations to the design, as follows:-

- ❖ The party wall between units 5 & 6 has been moved to the location of the existing ground floor partition ( whereas previously it was placed on the line of the existing first floor partition)
- ❖ Unit 6 kitchen/dining room now occupies two ground floor bays at the eastern end of the byre
- ❖ Unit 6 bedroom 3 is now located at first floor level, using the existing first floor partition
- ❖ One bedroom to Unit 5 has been lost, to allow for reduction in sub-division

Rooflights to light the first floor were all originally placed in the lower slated elevation of the mansard roof to the north (yard) side of the Byre roof. Insertion of rooflights is essential to the use of the upper floor of the Byre. In order to reduce their impact in the amended design, three have been relocated to the south roof elevation. Our original intention had been to keep all of the

outward facing elevations free of rooflights, and we are still keen to avoid them on the other units, but the south elevation of the Byre is well screened with trees and a mature hedgerow, so in this case they will have less impact than elsewhere in the scheme.

A section of wall extending west from unit 5 has been retained as requested, and this now forms part of the garden boundary between numbers 4 and 5.



*Section of brick wall to be retained to RHS of photo*



### PROPOSED INSULATION OF HISTORIC BUILDING FABRIC

The Design and Access Statement submitted with the original application described the approach to the insulation of the building fabric in principle (see page 7). Tim Murphy has asked for more detailed information on this.

#### Floors

The D&A Statement says:-

*Features such as brick and timber threshing floors will be retained, without lifting. Experience has shown that, once lifted, the floor materials cannot be returned with the same character and patina...*

*(Where new floors are required) Limecrete or suspended timber floors will be used to avoid the installation of retrospective damp proof courses in the brickwork and to prevent the concentration of moisture in existing historic brick floors.*

It is important to keep the building envelope as a breathing system. Insulation below new limecrete floors will be aggregate such as Glapor (recycled foamed glass).

#### Walls

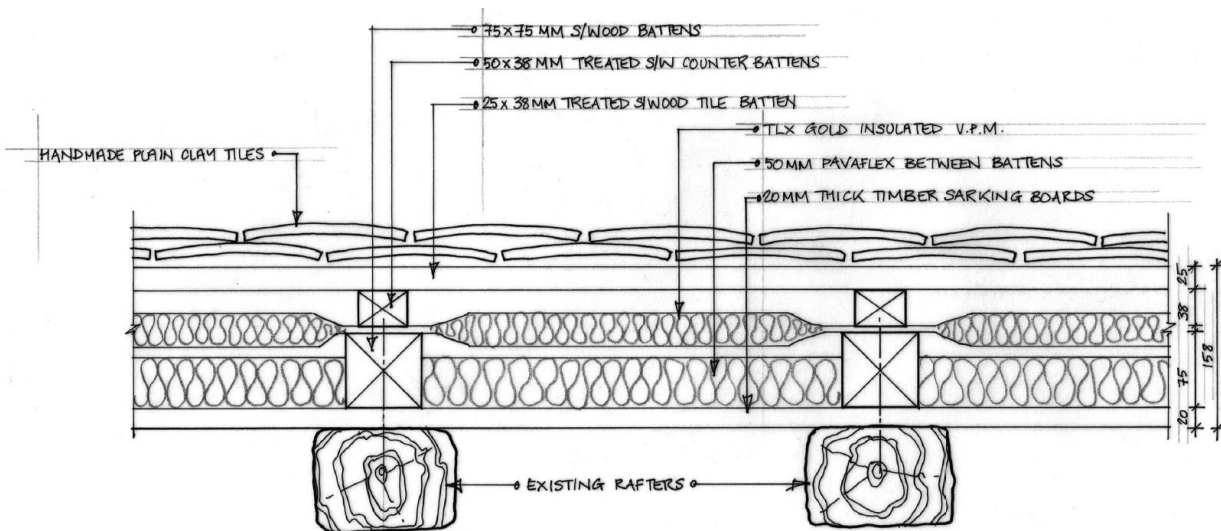
The D&A Statement says:-

*The brick walls of the barns are very thick, due to their height, and this means that the brickwork can largely be left exposed both inside and out.*

Where the brick walls must be insulated, again this will be done using a breathing system such as Thermalime or a lime hemp render applied to the internal face of the walls. Conventional application of modern PIR insulation between timber studs on the inside face of historic brickwork has been shown to result in damp walls, and so we prefer to keep to a breathing system. The extent and final detail of this will be subject to negotiation with building control.

#### Roof frame

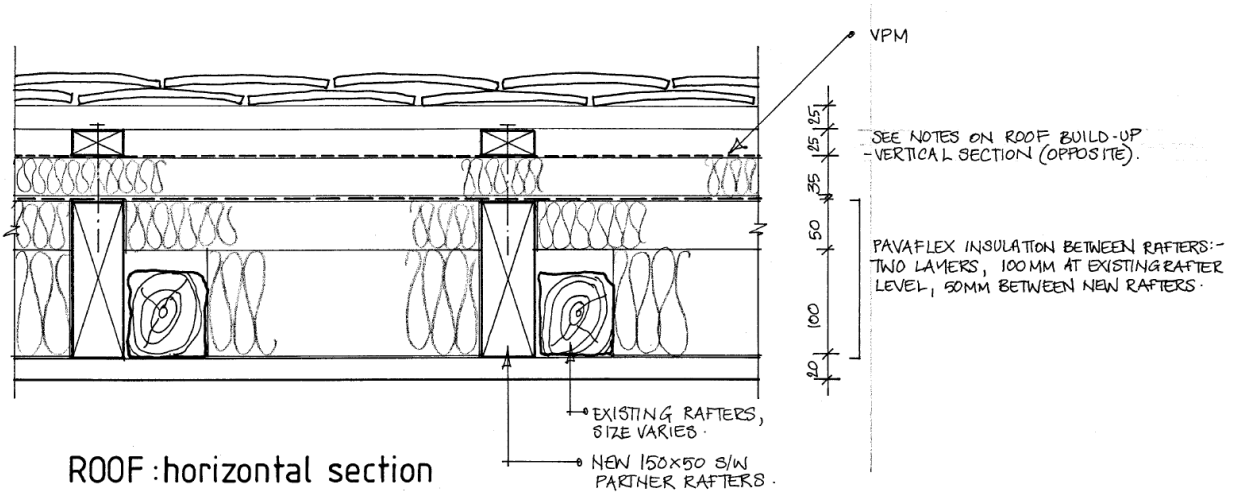
The detail below has been developed for the insulation of roof frames on other barn conversions in Essex, and approved for use on listed buildings. It shows the historic roof frame fully exposed, with a build-up of layers of boarding, wood-fibre insulation (Pavaflex) and the use of a vapour permeable multi-foil insulation (TLX Gold).



ROOF Horizontal Section  
TYPICAL DETAIL FOR EXPOSED ROOF FRAME

*Insulation of roof where original frame exposed*

In the Byre, there is evidence for a lime plaster lining on the underside of the rafters, and so a different method of insulation can be adopted, similar to the one shown on the detail below. Here the principal roof frame members will be exposed, but the cavity between rafters filled with woodfibre insulation, with another layer above, and the rafters will be underdrawn with new lime/hair plaster on laths. Once again, this detail has been approved on listed barns elsewhere in Essex.



*Insulation of roof where only principal roof frame members exposed.*

Further details of thermal upgrading will be developed during the process of preparing the construction drawings and it is expected that these will be covered by the application of a condition to any planning approval on this scheme.