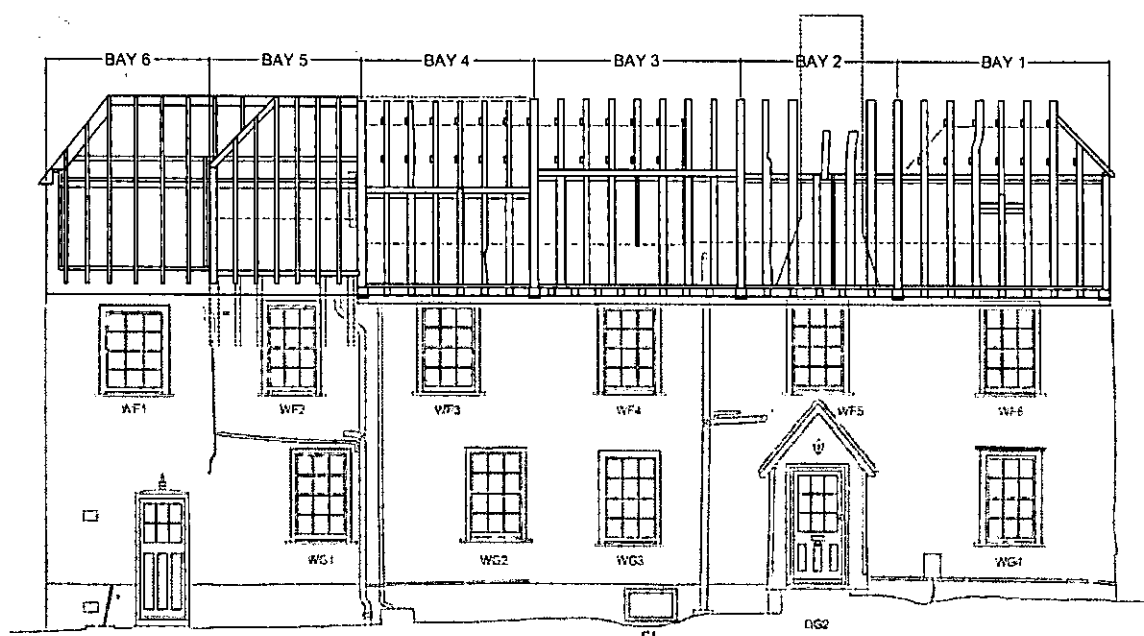




HERITAGE DESIGN AND ACCESS STATEMENT -18Q-03 – NOVEMBER 2023



To accompany an application for a 'Certificate of Lawfulness of Proposed Works to a Listed Building' at Nurstead Hall, Nurstead Lane, Longfield Hill, Kent, DA3 7AN

Scope of proposals: Essential repairs and reinforcement to existing roof structure.

Background & introduction

Nurstead Hall is listed as Grade II under the Planning (Listed Buildings and Conservation Areas) Act 1990 (as amended) *for its special architectural or historic interest*, first listed on the 26th of July 1983 and at the time of listing the house was known as Nurstead Hill Farmhouse.

Below is the List entry description of the property:

Entry Name: Nurstead Hill Farmhouse

Listing Date: 26th July 1983

Grade: II

C17 timber-framed and rendered. Two storey with half-hipped tiled roof. Five sash windows with glazing bars. Originally 3 but 2 eastern bays added. Moulded beams and ingle fireplace internally.

Nurstead Hall is a detached property situated on the south side of Nurstead Lane and lies approximately 2 miles south-east of Longfield railway station.

Existing roof description

The roof is made up of six bays; bays 1-4 built in C17; bay 5 built in C19; bay 6 built in C20.

The older part of the roof consists of four timber-framed C17 bays (includes the chimney bay) Bay(s) 1, 2, 3 and 4...which have timber-framed walls below. The roof to these four bays is constructed from oak and elm and re-used oak rafters from older buildings. The roof construction of these four bays is unusual. Bay(s) 1 & 2 have a clasped purlin (side purlin) roof without any traditional windbraces, the purlins laid flat to the rafters, a common feature of traditional roofs in Kent post 1600 until the decline of the timber-framing tradition. Bay(s) 3 & 4 have a staggered butt purlin (tenoned purlin) construction where the outside face of the purlins is in line with the outside face of the rafters, a less common construction but whose use began before 1600s and carried through for some centuries. A high proportion of elm has been used for the tenoned rafters in bays 3 & 4. More unusual is the rafter foot connection arrangement on the north elevation, where the eaves-plate (heavy beam that tops the wall-frame) support attic floor joists that project some 8 inches beyond the outside face of the eaves-plate and, in turn, support a pole-plate that is fixed to the extremity of the projecting joists. The rafter feet are then simply cut and nailed more-or-less flush with the outside edge of the pole-plate. The pole-plate in this instance is a plank of oak, cut between the principal rafters, which varies in thickness from 2" to 2.5". The rafter feet have moved outwards in places where the pole-plate has distorted and broken where suffering from severe decay. This section of the roof (bays 1, 2, 3 & 4) had been furred out to compensate for the deflections and misalignment of rafters and purlins, these were stripped off to allow for a full assessment of the repairs needed to the roof and will be replaced on a bay-by-bay process once all repairs have been carried out. Roof terminal has a half-hip roof to west end and the eastern truss of bay 4 is gabled.

Bay 5 of this roof is a C19 addition constructed in pine. This was built at the end of the timber framing tradition, evident by: the material used; the level-eaves construction; the rafters laid on edge; the purlins laid on edge and perpendicular to the rafters. The rafters are notched over the eaves-plate of this wall and over-sail to the fascia. The eaves-plate is built at a higher level than the older bays (on the north elevation) to allow for the projecting joist and pole-plate arrangement on the north elevation. This roof was half-hipped and is still evident in the roof frame, when bay 6 was added the half-hip remained to bay 5 and was built on top of the hips to continue rafters to a ridge.

Bay 6 of this roof is a C20 addition constructed in modern softwood. It is a cut-and-pitch roof with rafter feet fixing to a 50 x 100mm wall-plate bedded onto a 215mm thick wall which is constructed in lightweight concrete blocks. Rafter feet over-sail to meet the fascia board. The east end roof terminal is a half-hip.

Proposed repairs and reinforcement of the existing roof

As part of approved works being carried out under application ref: 20230670 & 20230669 the roof tiles, batten and felt was stripped from the roof. Areas of the roof timber-frame was seen to be in a poor condition, missing elements and severe decay. The existing furring strips were removed from the roof in order to assess the extent of repairs needed, and a structural engineer was

instructed to recommend a scheme of repairs / reinforcement that would be essential to maintain the roof frame's structural integrity with the objective of minimal intervention to the existing fabric. The results of the structural engineer's recommendations can be seen on sketches included in the application; pma 5291 SKD 10a, 11a & 12a. These have also been added to a roof elevation drawing PP-18Q-0007 included in this application.

As can be seen, replacement items have been kept to a minimum and only replaces timbers that cannot be reinforced. Reinforcement has been kept simple and reversible with steel brackets and additional timbers alongside existing timbers to increase the load bearing capacity of damaged and decayed timbers. The purlins are heavily deflected and after some discussion on whether or not the purlins required stiffening with a steel flitch-plate (which would be embedded into the timber) it was decided the best approach would be to scribe oak to fit the purlin deflection in order to stiffen the weak purlins without cutting a slot to receive the steel. The thicker centre of the scribed oak will be taken up in the thickness of the replacement furring strips which will be carried out on a bay-by-bay basis.

This work will be required to be completed before the approved works to the roof can be re-started.

The proposed repairs and reinforcement are essential to retain the roof's primary function which is load bearing. The proposals are the minimum required to allow the roof-frame to perform this vital function whilst maintaining as much existing fabric as possible.

On structural timbers Historic England comment...*'The priority should be to keep your existing roof structure and avoid replacing old roof timbers. The most important of these are the roof trusses and the purlins (the horizontal sidebeams that support the rafters).'*

For the reasons above, we are of the opinion that these repairs are essential for the listed building and an approach of minimal intervention and reversibility has been adopted to prevent excessive disturbance of the existing fabric, and is an approach that maintains the maximum amount of existing roof timbers. No part of the roof is fundamentally altered and is repair / reinforcement focused, therefore, we are of the opinion that the work described in the documents submitted in this application does not require listed building consent.

Planning history

List of previous planning history obtained from Gravesham Borough Council planning website.

- Application for Listed building consent for the reinforcement of east masonry wall and external alterations to rear chimneys.
Ref. No: 20231172 | Status: Pending Consideration
- Application for the variation of condition 2 and 3 attached to planning reference 20230669 for the erection of a rear dormer, external repairs to render and joinery along with internal reinforcement of chimney and timber-frame structure and installation of Lightning Protection System; to allow the documents and plans to be changed for the roof tile manufacturer from Spicer tiles to Tudor tiles.
Ref. No: 20231144 | Status: Pending Consideration
- Application for the variation of condition 2 attached to planning reference 20230670 for an application for Listed building consent for the erection of a rear dormer, external repairs to render and joinery along with internal reinforcement of chimney and timber-frame structure

and installation of Lightning Protection System; to allow the documents and plans to be change for the roof tile manufacturer from Spicer tiles to Tudor tiles.

Ref. No: 20231130 | Status: Pending consideration.

- Application for a non-material amendment to planning permission reference number 20230669 to allow the change of roof tile manufacturer from spicer tiles to tudor tiles.

Ref. No: 20231131 | Status: Application withdrawn.

- Erection of a rear dormer, external repairs to render and joinery along with internal reinforcement of chimney and timber-frame structure and installation of Lightning Protection System.

Ref. No: 20230669 | Status: Application permitted.

- Application for Listed building consent for the erection of a rear dormer, external repairs to render and joinery along with internal reinforcement of chimney and timber-frame structure and installation of Lightning Protection System.

Ref. No: 20230670 | Status: Application permitted.

- Construction of dormer window in the rear roof slope

Ref. No: 20020165 | Status: Application permitted.

- Listed building consent for erection of dormer extension and 1no. conservation roof light in rear roof slope.

Ref. No: 20000367 | Status: Application permitted.

- Change of use from residential accommodation for holiday letting to residential.

Ref. No: 20000366 | Status: Application permitted.

- Listed building consent for the conversion of stable to a holiday home.

Ref. No: 19990073 | Status: Application permitted

DESIGN AND ACCESS CONSIDERATIONS

AMOUNT

There is no change in floor area or volume with the proposal.

LAYOUT

The existing layout of the site will remain unchanged.

SCALE

The proposal creates no increase in scale to the house.

LANDSCAPING

No changes are proposed to the existing landscaping.

APPEARANCE

Proposals are for reinforcement / repair of a timber-framed roof structure and replacement of roof furring strips and therefore the appearance of the building will not change.

ACCESS

No adjustment or improvements are proposed to existing access and drive arrangements. The proposals do not impact or alter existing access arrangements.

Existing photographs in Appendix A.

SIGNIFICANCE

The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic.

- *Historic significance – the age and history of the asset, its development over time, the strength of its tie to a particular architectural period, the layout of a site, the plan form of a building, internal features of special character including chimneystacks and fireplaces.*

The historic significance of the building lies in its age, primarily the C17 historic core; its timber-frame and its large axial chimney with back-to-back fireplaces on the ground and first floors. Of low significance is the front porch and front elevation joinery. Of no historic significance is the axial chimney stack above the roofline; the modern chimneys to the rear; the rear elevation extensions and joinery; rear elevation dormer window; the cementitious external render to the house.

- *Cultural significance – the role a site plays in a historic setting, village, town or landscape context, the use of a building perhaps tied to a local industry or agriculture, social connections of an original architect or owner,*

Cultural significance is moderate, the house said to be one of five houses in Nurstead (a small civil parish of Meopham consisting of around 522 acres) according to Edward Hasted survey of 1797 and is located approximately 1 mile by road from the Grade I listed Nursted Court.

Aesthetic/architectural significance – the visual qualities and characteristics of the asset (settlement site or building), long views, legibility of building form, character of elevations, roofscape, materials and fabric, special features of interest,

Its architectural significance is largely as a vernacular building, probably dating from the 17th century, it is built in local materials by local craftsmen for local people. Whilst the house retains a large proportion of its original timber-frame, the most crucial part of its construction system, it also has historic and modern extensions with modern materials and joinery. It has a relatively large unbroken roofscape that is currently in a poor condition with a mis-match of tiles, a high proportion of which are machine-made. Even though the north elevation joinery is relatively modern, their traditional style adds to the character of the front elevation.

- *Archaeological significance – evolution of the asset, phases of development over different periods, important features, evidence in building fabric, potential for below ground remains*

The evidential value and potential of Nurstead Hall lies primarily in the timber-framed elements of the surviving 17th century structure. The historic core of the building well illustrates a vernacular dwelling house of its construction period.

IMPACT ASSESSMENT OF THE PROPOSALS ON THE HERITAGE ASSET

The repair and reinforcement proposals have: very little physical impact on the existing fabric; no impact on aesthetic or architectural significance; no impact on cultural or archaeological significance; no impact on the historical significance. The proposed repairs and reinforcements cannot be seen internally or externally.

CONCLUSION

The proposed repairs and reinforcement will allow the structural frame to continue performing its primary load-bearing function, which in turn will preserve the overall aesthetic and character of the building. The repairs are essential and with an approach adopted of minimal intervention, these can be reversed if ever required and maintain the maximum amount of existing roof timbers. Therefore, we are of the opinion that this essential work does not require listed building consent.

APPENDIX A



The C20 half-hip of bay 6 – east elevation



The C20 half-hip of bay 6 – east elevation



The bay 1 C17 half-hip of bay 1 – west elevation



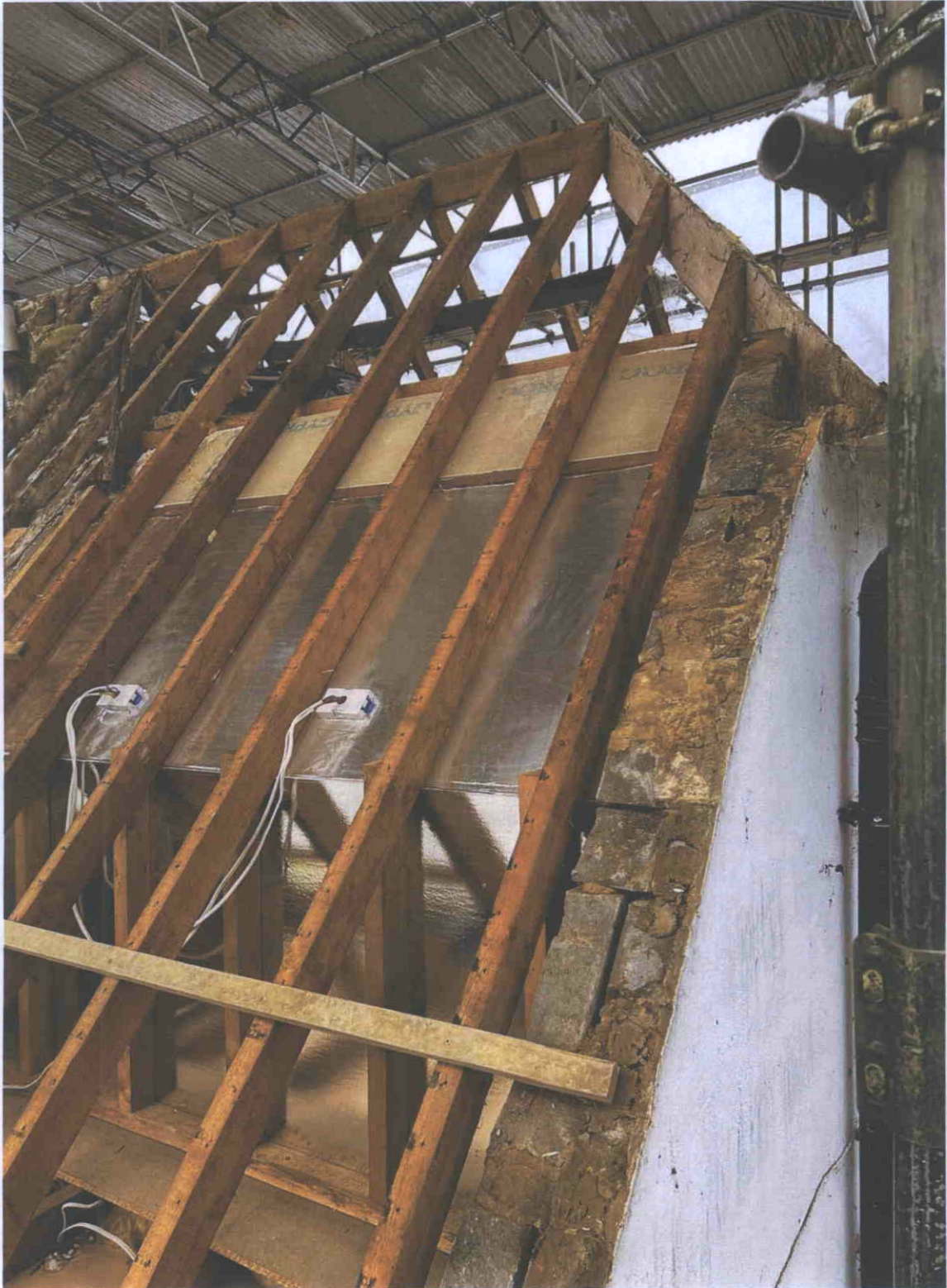
The bay 1 C17 half-hip of bay 1 – west elevation



The C17 roof slope of the north (front) elevation showing deflected and decay damaged pole-plates; deflected purlin (bay 3); rafters resting on chimney with no trimmer; and deflected and misaligned rafters.



Example of decayed pole-plate on the north elevation



The bay 6 C20 roof slope on the south elevation (east end)



The bay 6 C20 roof slope on the north elevation (east end)



The bay 5 C19 roof slope on the south elevation and bay 6 C20 roof slope shown to the right of the photograph.



The south elevation roof slope of bay 3 shown on the left of the photograph; bay 4 centre of the photograph; and bay 5 shown to the right of the photograph.



The south elevation roof slope showing short joist ends at bay 2 to the right of the existing dormer.



The south elevation roof slope showing short joist ends; at bay 3 at the left of the photograph and bay 4 to the right of the photograph.



Rafter tops through bay 4 taken from the north roof slope. Note the fake 'ridge board' that had been installed for the now removed furring strips.



Bay 6 (eastern end) north



Bay 5 north



Bay 4 north



Bay 4 (L/H side) and Bay 3 (R/H side) north



Bay 3 (L/H side) Bay 2 (centre) and Bay 1 (R/H side) north



Bay 1 north



Bay 6 south



Bay 5 south



Bay 3 (L/H side) Bay 4 (centre) and Bay 5 (R/H side) south



Bay 3 (L/H side) Bay 4 (R/H side) south



Bay 3 south



Bay 1, bay 2 at chimney and dormer south