

Watering Farm

Heritage, Design & Access Statement

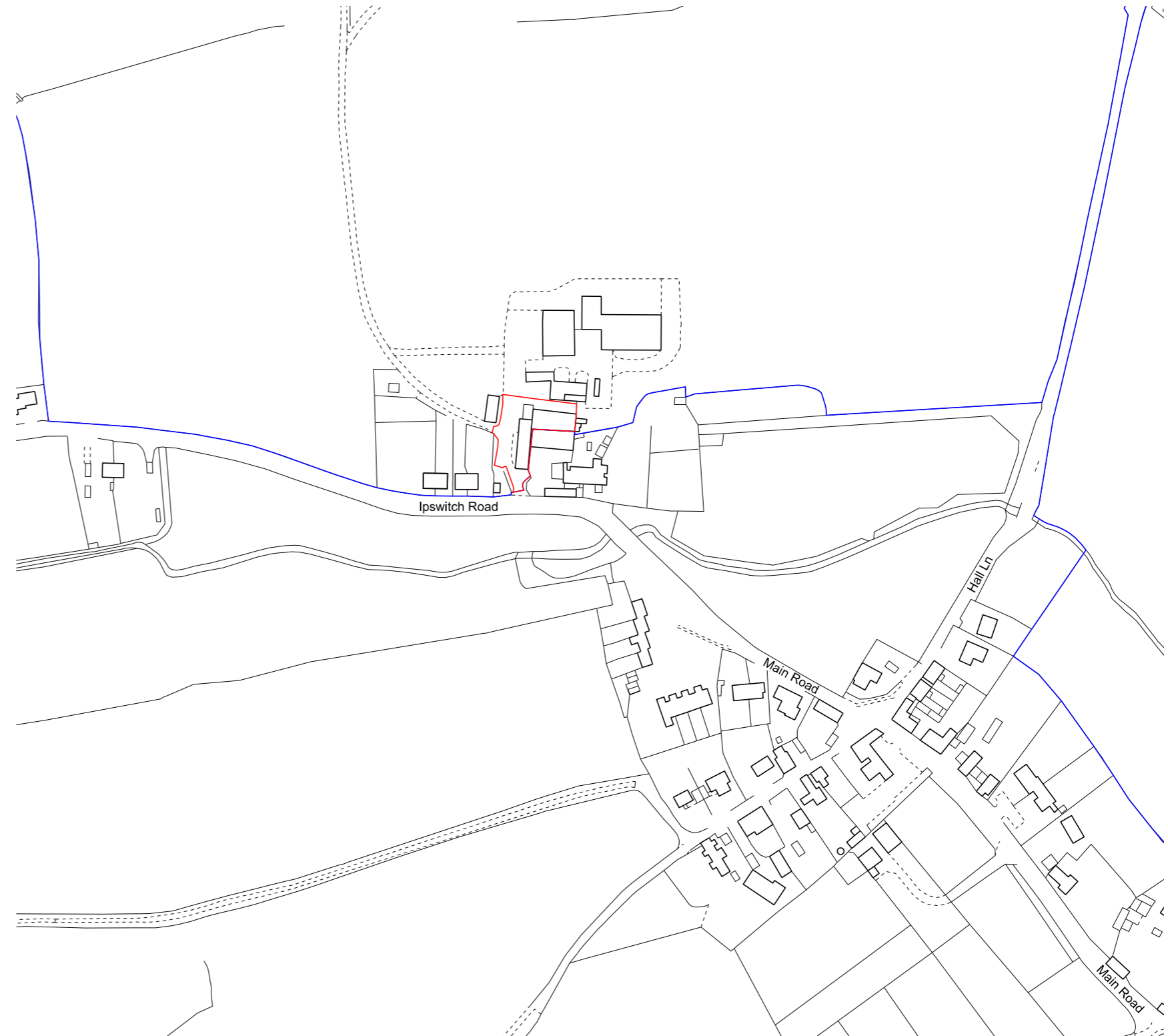
1. Introduction

This document includes an assessment of the heritage, design and access considerations to support the application for full planning and listed building consent for the conversion to residential use, and associated works of a Grade II listed barn which is currently redundant and the development of three new residential units at Watering Farm, a farm yard site located on the outskirts of Somersham.

An assessment of the significance of the listed building has been undertaken and in accordance with the NPPF, this statement of significance is proportionate to the asset's importance. This assessment has been undertaken by HAT Projects, an award-winning architecture practice with long experience of working with listed and historic buildings, with the input of Ian Alderton, an MCIAT Accredited Conservationist.

The principal of development, layout and design has been subject to extensive pre-application discussion and development with planning and heritage officers at Mid Suffolk District Council and with Somersham Parish Council and their feedback has been taken on board in the development of the final proposals. The conversion of the listed barn has been designed in line with best practice for historic barn conversions, including Historic England's guidance on the conversion of historic barns.

This statement should be read in conjunction with the Planning Statement and the full drawings and supporting technical information submitted with the application.



2. About HAT Projects

HAT Projects is one of the UK's leading architecture practices, with a reputation for fresh and imaginative design thinking coupled with rigorous attention to detail, sensitivity to context and excellent project management.

HAT are best known for their work on cultural, community and workspace projects, mostly involving adaptive reuse of historic buildings. HAT Projects have worked on a number of Grade 1 and 2 listed buildings including the Victoria and Albert Museum, Shoreditch Town Hall, Ely Museum and Redbridge Town Hall. HAT have also completed a number of houses in rural settings and in Areas of Outstanding Natural Beauty. Based in north Essex, the practice has specific expertise in rural development, planning policy and design in East Anglia, as well as working with listed buildings. Director Hana Loftus is co-chair of the Suffolk Design Review Panel and a panel member for Design South East, and director Tom Grieve is a member of the Essex Quality Review Panel.

HAT have been working with Blakenham Farms for a number of years on a range of projects which aim to repurpose redundant and marginal agricultural sites to create homes and workspace which meet local needs and are supported by their local communities.



Hopton Yard, Suffolk - housing development



Hopton Yard, Suffolk - housing development



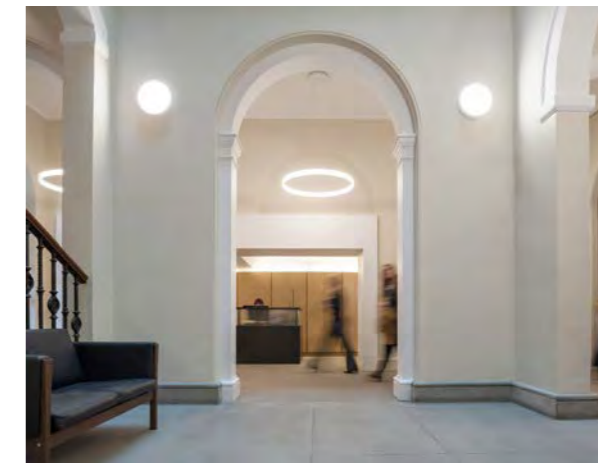
Stoke Cottage, Shropshire - private house



Cleefold, Shropshire - private house

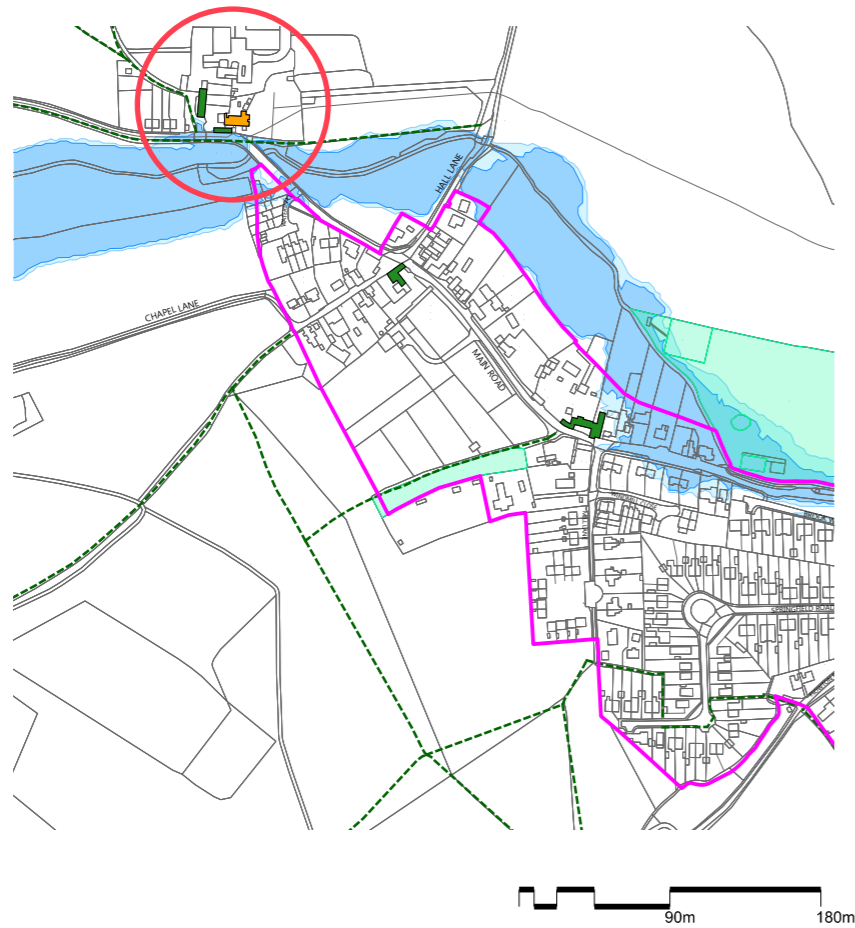


Ely Museum - restoration and extension of a Grade 2 listed building.


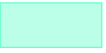
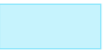
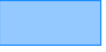




V&A Museum Secretariat - new reception facilities within Grade 1 listed museum

3. The site



Somersham boundary map

-  Settlement boundary
-  Designated open space
-  Flood zone 2
-  Flood zone 3
-  Grade 11* Listed
-  Grade 11 Listed

Watering Farm is located just outside the Settlement Boundary of Somersham. The farm is within the 30mph zone and is within walking distance of Somersham village, connected via a footway along the Ipswich Road. The site is a sustainable location for development and this has been established by the planning consent granted for 3no new build dwellings on a site immediately adjacent to the barn which is the subject of this application.

Watering Farm comprises a cluster of buildings which would originally have been a single farmstead but which are now within two ownerships. Within the applicant's ownership are:



1. a Grade II listed barn - the subject of this application - with modern lean to shed to the east

2. an unlisted C17 / C18 timber framed barn
3. a C19 masonry stock shed
4. a cartlodge in poor condition (consent has been granted for its demolition, to enable the delivery of 3no new homes on the 'triangle' plot on which it sits).
5. modern machinery shed
6. modern grain dryer.
7. two pairs of C20 semi-detached farm worker cottages

The Tudor Grange (8), which includes a Grade 2* listed farmhouse and a Grade 2 listed dairy and bakehouse building adjacent to the site, is not in the same ownership and will be unaltered.



Site plan

-  Application boundary
-  Ownership boundary

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Site photos



View of the listed barn (left, elevation is currently covered in ivy) and the Tudor Grange and Dairy/Bakehouse, as seen looking across Somersham Road.



View of listed barn from the north-west, the roof of the Tudor Grange can be seen in the background. The lean to shed to the east of the barn can be seen, this is proposed to be removed. The single storey attached structure to the north of the barn is to be retained and restored as part of the proposals.

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Site photos



Condition of the exterior of the barn - showing poor existing condition, cement render at high level and over brick plinth.



View of the east side of the barn (area to the left is outside of the application boundary and applicant's ownership)

3.1 Site and planning history

Watering Farm is located on the edge of the settlement framework of Somersham. The farm is within the 30mph zone and is within walking distance of Somersham village, connected via a footway along the Ipswich Road.

This application is concerned with the listed barn and its immediate surrounding area. The Tudor Grange, a Grade II* listed property adjacent to the site, is not in the same ownership and will be unaltered. The adjacent 'triangle' site was granted full planning permission in January 2021 for 3 no. homes.

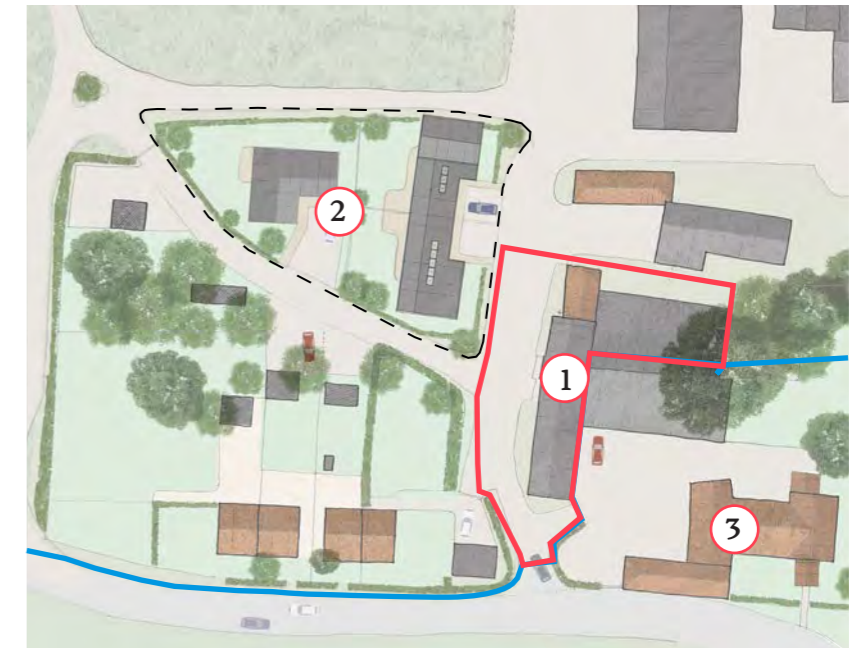
Summary of proposals

The barn has already undergone substantial alterations in the past, most significantly the replacement of the original roof with an unsympathetic low profile newer roof. The aim of the proposals is to undertake a sympathetic conversion to a new dwelling, which respects and celebrates the character of the listed structure and which alters the historic fabric only where absolutely necessary to create a functional, energy efficient and viable home. This will involve reinstating a roof structure that has the proportions and design that are likely to have been present in the original historic roof.

The proposals involve very limited alterations to the historic fabric in order to secure the future of the listed barn and restore it to good condition. The proposals are being developed by architects with extensive listed building experience, and informed by detailed structural surveys, heritage impact assessment and by best practice guidance on barn conversions.

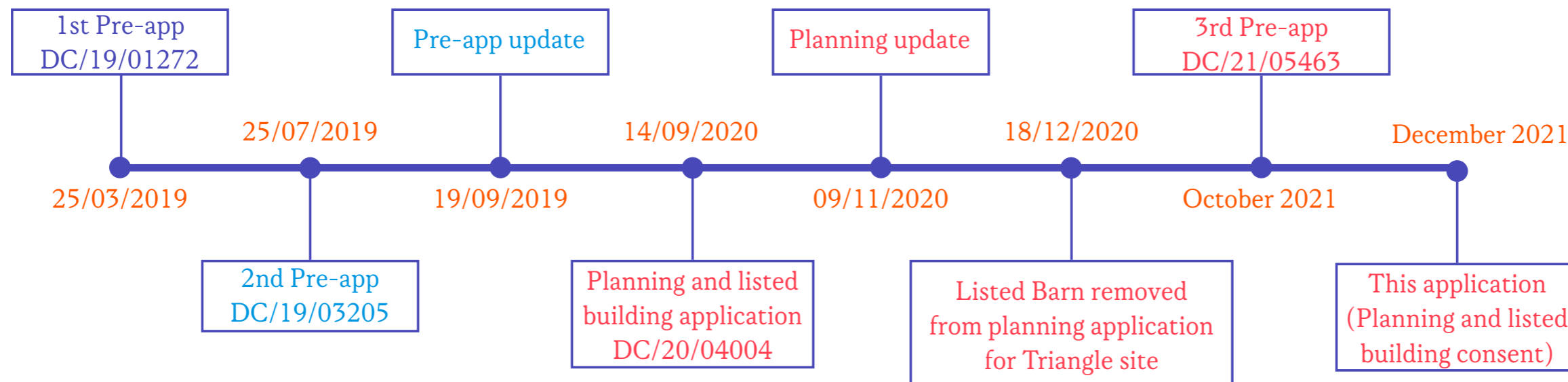
Planning history

The design for the site at Watering Farm has been developed over the last two years, initially with the barn conversion and the new-build dwellings forming a single scheme for planning purposes. Later the proposals were split into two schemes to aid assessment and determination; one for the Triangle site and other for the Listed barn. Three formal pre-application submissions have been made to Mid Suffolk District Council along with informal discussions with officers. Comments from officers have informed the design proposal as it has developed, however as four different heritage officers have been involved with the scheme, we have received contradictory advice at different times. The design team have used their judgement and long experience with historic buildings to develop final proposals which represent an appropriate



Plan showing consented scheme to the west of the site of the current application

- Site ownership
- Application boundary
- Consented site
- 1. Listed Barn
- 2. Triangle site
- 3. Tudor Grange



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and sensitive conversion with minimal alterations to the

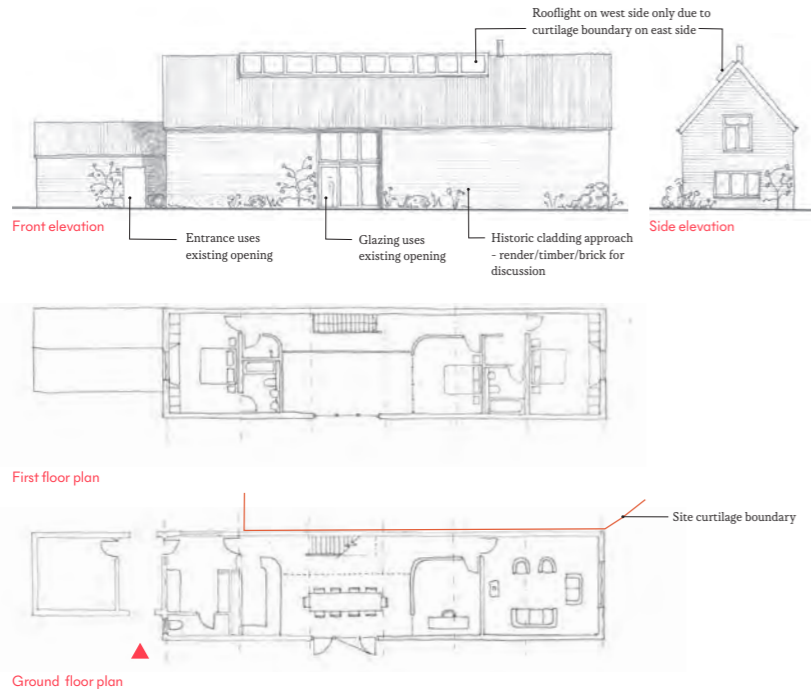
Pre-application 1

The first pre-application submission was made in March 2019 and this concerned the redevelopment in principle of a number of sites within the Blakenham Farms estate, including the Watering Farm site. No design proposals were presented. The feedback received at this stage, in relation to Watering Farm was :

- The site was considered to be relatively sustainable as a location for new homes, despite being outside the settlement framework, due to its proximity to Somersham village, with a good quality footway along the road and services within walking distance, and its inclusion within the 30mph zone.
- It was advised a sensitive conversion of the listed barn would be required.

Pre-application 2

The second pre-application was submitted in July 2019 and a response was received in August 2019. This pre-application



Scheme as submitted for the 2nd pre-application. Note that this was drawn up before a full measured survey or structural survey had been completed.

related specifically to Watering Farm and presented a proposal for conversion of the listed barn alongside the development of new homes on the adjacent 'triangle' site. The following detailed comments were received from Tegan Chenery, Heritage officer:

- The principle of conversion of the barn to a dwelling was supported
- Replacing the roof with one of a steeper pitch would be appropriate
- The sketch plans were felt to show generally good principles of conversion as the central bays would remain open and new window openings would be limited.
- The southern facade's windows were thought to be too domestic
- The principle of a long rooflight at the ridge was acceptable, but it was suggested that the length of the roof light be minimised
- Officers advised that a limited amount of new openings could be introduced to the front (western) elevation to bring more natural light into the building.
- Officers advised that a structural survey of the barn should be undertaken and included as part of the planning application

SCC Highways were also consulted and provided a written response in September 2019, advising that the proposals would be acceptable subject to providing a visibility splay or speed survey. A speed survey was subsequently carried out, and the results used to set the location of the proposed agricultural road. In addition to seeking feedback from the local planning authority, the local Parish Council were also consulted and given the opportunity to review and comment on sketch proposals. Their feedback was positive and supportive.

Initial planning and listed building application

A full planning and listed building application was submitted in September 2020 for conversion of the listed barn alongside the development of three new homes on the 'triangle' site to the west of the barn. This was supported by a detailed structural survey of the barn. The internal consultee response received in October 2020 from Karolien Yperman, Heritage and Design Officer, concluded that the proposal would cause:

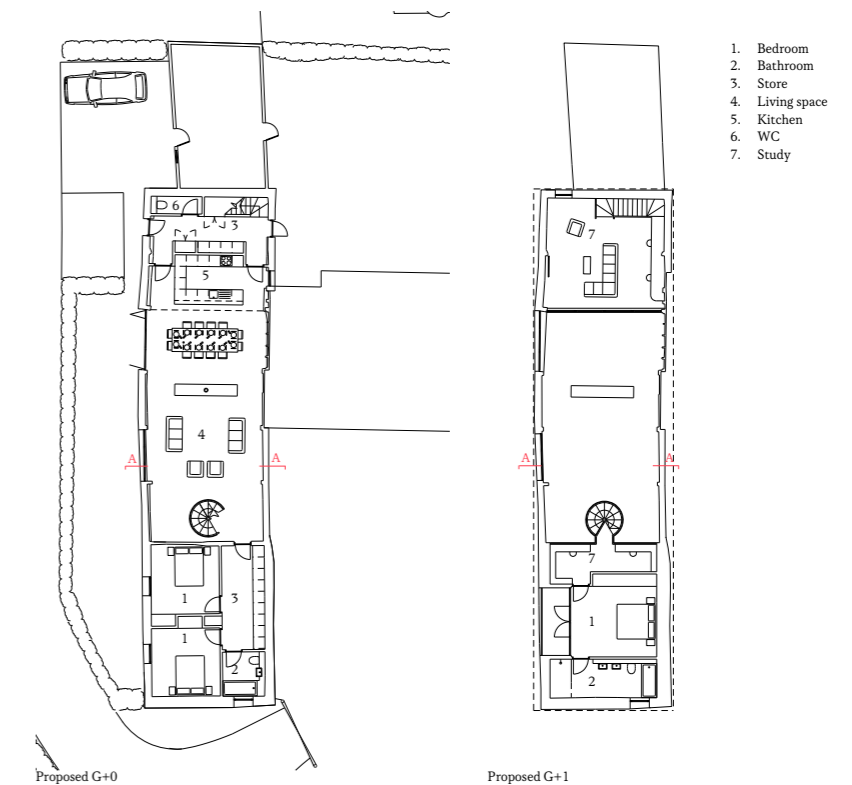
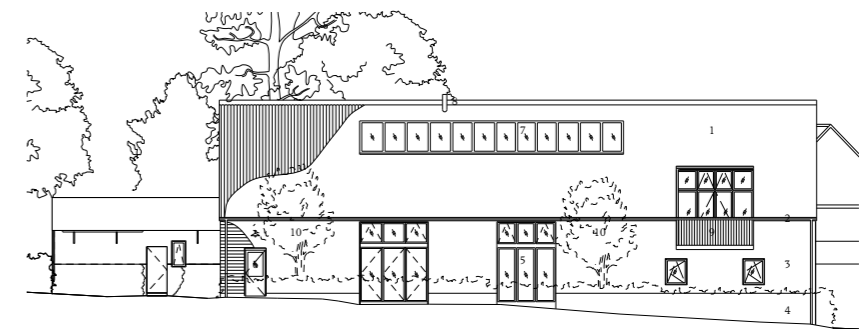
- a medium level of less than substantial harm to the significance of the listed Barn, and
- a low level of less than substantial harm to the significance of

Tudor Grange and the Dairy and Bakehouse.

Some of the reasons for the officer's conclusions related to the design and impact of the three proposed new homes and some related to the conversion of the barn itself.

The comments related to the barn conversion itself were that:

- The reinstatement of a steeper pitched roof and the use of S profiled roofing would be acceptable.
- A large bank of the rooflights would be acceptable in principle



Scheme as submitted for the initial planning and listed building application.

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unacceptable or caused any adverse comment from either Karolien Yperman or Paul Harrison. The pre app response also misread the survey information about this area, which does not comprise a mix of old and new timbers.

- It was suggested that a new floor could be inserted above the level of the existing tie beams, therefore not requiring them to be cut. This is a peculiar suggestion as it would involve creating a false floor above the existing historic hayloft mezzanine floor, with a large void between them. This would render the existing floor completely meaningless with no evidence and understanding of its historic function. Currently the hayloft exists and has a small opening through the boarded wall dividing it from the main barn, which is not of sufficient height to allow access to current standards. Hence the least harmful approach is to raise the head of that opening (requiring removing part of the tie beam which currently forms the head) but keep its position and appearance the same so that it can be clearly read and understood.
- The removal of the cement render on the exterior and its replacement with weatherboarding was objected to, but this had not been raised as a concern at any previous stage. We fail to understand how this can be felt to be inappropriate. There is no evidence that the cement render was a replacement for lime render on the upper part of the barn, and render is not mentioned in the listing text from 1955 as an external material - only weatherboarding is mentioned. The existing render was therefore almost certainly added after that date which is consistent with it being cement. Removing the render and replacing it with timber weatherboarding will return the appearance of the barn to a more appropriate historic materiality.
- The roof material was felt to be inappropriate but this was not considered inappropriate by any of the previous officers who commented on the scheme. The proposed roof material is an S profile black cement particle board which is hard-wearing and suitably agricultural in appearance, and offers better long term performance than profiled metal sheeting.
- The approach to the detailing of the external wall buildup was queried but this had formed part of the earlier planning application and was not raised as a concern.
- The removal of 1no stud between the main part of the barn and the southern 'stable' end was raised as an issue, while this had not previously been queried as it had been fully justified.

Some comments in the pre-app response were reasonable and have been addressed in further design development. These include:

- Reducing the size of the opening between the single storey northern shed and the main barn, so that only 1no stud is removed
- Reducing the number of rooflights on the west side of the roof where they are more visible.

The final proposals as presented here represent a highly considered and sustainable approach to converting the barn to residential use and therefore safeguarding it in its optimum viable use. A full assessment of the impact on the listed barn itself and on the neighbouring listed buildings can be found at the conclusion of this report.

4. Heritage assessment

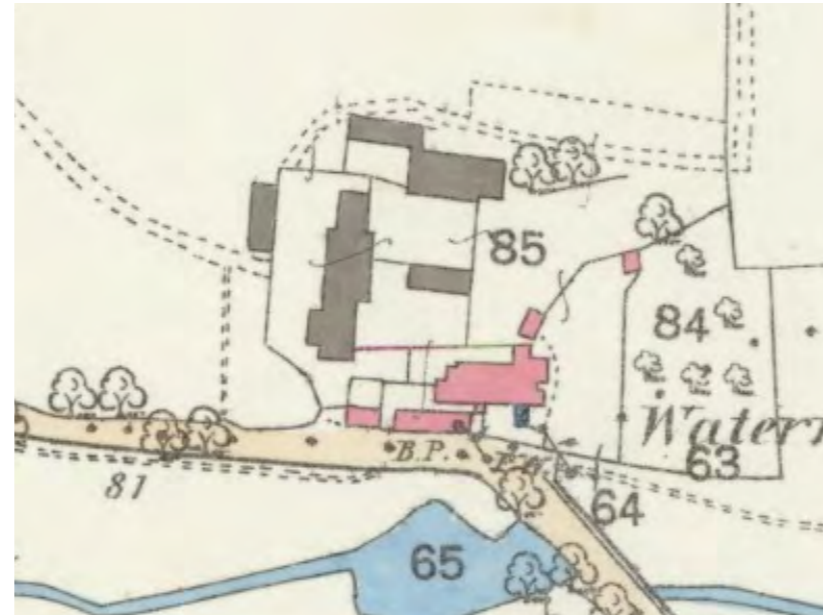
The format, techniques and content of this assessment draw upon the guidance from the English Heritage Publication; Conservation Principles: Policies and Guidance (dated 23rd April 2008), supported by Historic England and The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition) published December 2017.

4.1 Historic development of Watering Farm

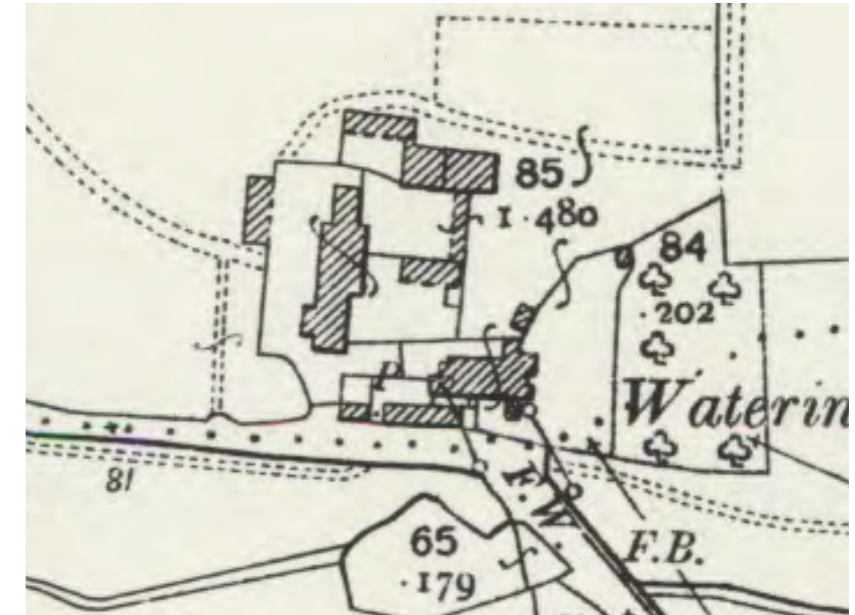
The maps on the right show the evolution of Watering Farm, from a small cluster of barns associated with the Tudor Grange (which was known as Watering Farm until the 20th century), to a larger farm yard with additional residential buildings.

The listing text for all three listed buildings in the cluster can be found below. The listing text suggests that the Tudor Grange farmhouse was the earliest building on the site, dating from the mid 16th century but with substantial alterations in the early 17th century, including demolition of the original hall and reuse of some of the moulded and chamfered timbers it contained, in the construction of Watering Farm barn which is therefore dated, to the early 17th century. It is suggested that the dairy and bakehouse range were constructed c. 1600. All three buildings were listed at the same date in 1955.

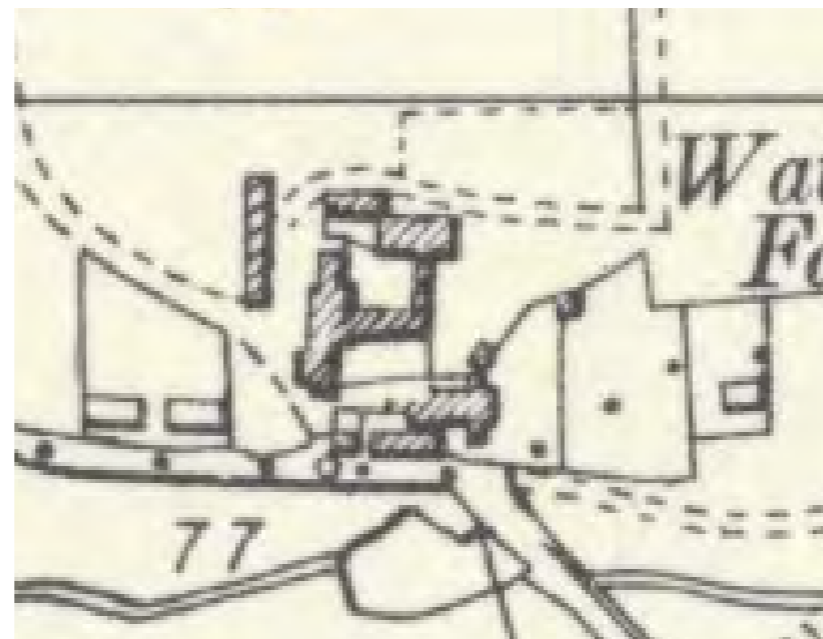
The barns at Watering Farm appear on the 1882 25 inch OS map with the farmstead identified as Waterrun Farm. The historic map records demonstrate how the barn and the cluster have altered over time. The listed barn is shown with a since removed outshot to the south western end, a clear inset in the plan on the eastern side which may correspond to the division between the two storey stable/hayloft section and the main part of the barn, and a series of dividing walls and an outbuilding between the barn and the Tudor Grange. The single storey attached shed to the north can be clearly seen. A small building on the triangle site - for which full planning



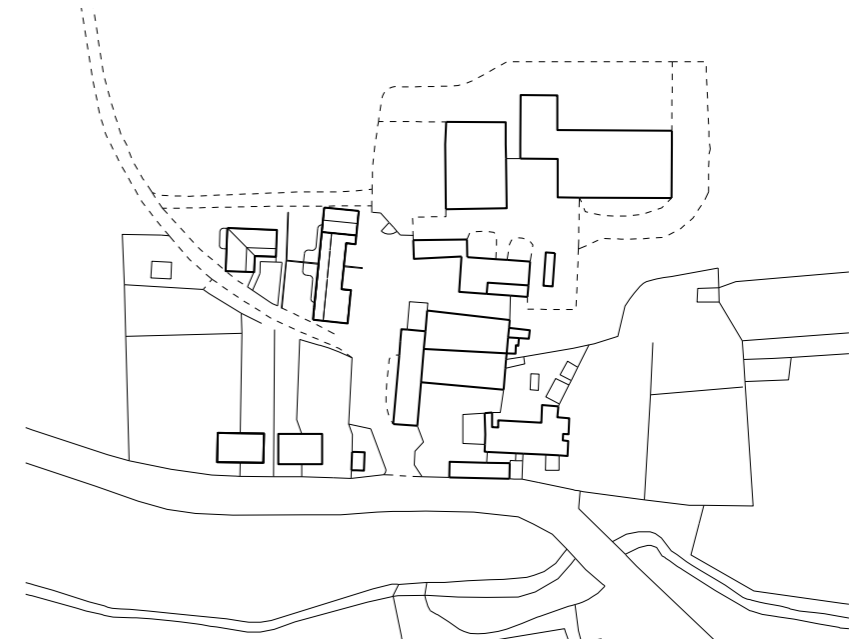
Extract from 1882 25 inch OS map



Extract from 1902 25 inch OS map



Extract from 1958 OS map



Current plan showing consented new homes to the west of the listed barn

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permission has now been granted for three new homes- can also be identified as can the access track / lane that connects Watering Farm to Rookhill Farm (now Rookery).

The 1902 25 inch OS map shows the same farmyard arrangement with the addition of new structure connecting the northern unlisted barn with a now demolished small barn to the east of the listed barn. The dividing walls between the listed barn and the Tudor Grange also appear unchanged.

The 1958 OS map shows more significant changes to the Watering Farm site. The four cottages to the south of the site can now be seen with a clearly defined plot boundary. A new structure (possibly the existing lean-to) can also be seen attached to the back of the listed barn. The series of dividing walls between the listed barn and Tudor Grange have been simplified. The barn on the triangle site is shown extending beyond the line of the other barns.

The final map shows the current site plan with the consented scheme on the 'triangle' shown. The farmyard has been extended to the north with two large agricultural buildings. The second lean-to that was added on the Tudor Grange side of listed building can also be seen. Its also clear that the series of walls that divided the space between the listed barn and the Tudor Grange have been altered and simplified.

Listing text: Watering Farm Barn (subject of this application) (Grade 2 listed)

- List Entry Number: 1251581
- Date first listed: 09-Dec-1955
- Statutory Address: Tudor Grange, Main Road, Nettlestead, IP8 4QL
- Details: NETTLESTEAD SOMERSHAM MAIN ROAD Barn 20 metres west of Tudor Grange. 9.12.55
- GV II Barn and stable, early C17. Six bay barn; two bay stable with hayloft above at south end. Timber-framed and weatherboarded, retaining in part the wattle-and-daub infill. Corrugated iron roof, renewed in C20 (the roof was formerly thatched). Studwork has wind-bracing of shortened tension form. The C17 stable is clearly constructed from components of the demolished hall range of the adjacent Watering (or Water-run) Farmhouse, now known as Tudor Grange. A main beam has roll and scotia mouldings matching the mid C16 work

surviving in the house; unmoulded reused floor joists and other substantial components are also of C16 type.

- Listing NGR: TM0824048942

Listing text - Dairy and bakehouse range immediately south of Tudor Grange (Grade 2 listed)

- List Entry Number: 1250947
- Date first listed: 09-Dec-1955
- Statutory Address: Tudor Grange, Main Road, Nettlestead, IP8 4QL
- Details: NETTLESTEAD SOMERSHAM MAIN ROAD Dairy and bakehouse range immediately south of Tudor Grange 9.12.55
- GV II Dairy and bakehouse range, built c.1600 adjacent to the service wing of Tudor Grange (then known as Watering Farmhouse). Used in part as a farm office at date of survey.
- Two storeys. Timber-framed; infilled along the front with herringbone bricknogging, probably introduced in late C19/ early C20; the rear has plastered wattle-and-daub infill panels. The close-studding has unusual paired serpentine braces at each corner. The ground storey walling was mostly rebuilt C19 in red brick. Plain tiled roof, hipped at the left-hand (bakehouse) end.
- In the bakehouse is a chimney of red brick, intruded in C17/ C18. The upper floor retains all ten original diamond-mullioned windows, most being of four lights. One has an internal boarded sliding shutter, and most have battened louvres applied externally. Various C19 casements at ground storey. A good original moulded plank entrance door faces the service wing of the house. The two bay bakehouse at the left-hand end has a lightly smoke-blackened roof and must formerly have been unfloored. The two bay centre cell was probably a dairy with granary above (the upper room still has grain-bins). Open trusses have strongly-cambered tie-beams with cranked arch-braces. Good wind-braced clasped-purlin roof. The upper part of the building is almost totally unaltered and is an excellent example of its type.
- Listing NGR: TM0825848915

Listing text - Tudor Grange (Grade 2* listed)

- List Entry Number: 1263029
- Date first listed: 09-Dec-1955

- Statutory Address: Tudor Grange, Main Road, Nettlestead, IP8 4QL
- Details: NETTLESTEAD SOMERSHAM MAIN ROAD Tudor Grange 9.12.55
- GV II* Farmhouse, mid C16 with alterations of early C17. A three-cell H-plan house with cross-passage entrance. Two storeys and attics. Mainly timber-framed and plastered, partly of red brick. The left-hand cross-wing has high-quality tension-braced close studwork exposed externally; both cross-wings are jettied at first and attic floor levels. In early C17 the hall range was rebuilt higher; this and the right hand cross-wing have good C17 brickwork up to a moulded string course at first floor level. Plain tiled roofs with lobed C19 bargeboards. Large external C16/C17 chimneys of red brick against both cross-wings. Mainly C19 mullioned and transomed windows.
- The hall has a C17 fourteen-light mullioned and transomed window of plastered brick; two others, of four lights, are in the parlour. The left-hand cross-wing has several C17 ovolo-moulded mullioned wooden windows, one large example at the rear having a transome. Early C17 single-storey brick entrance porch with dentilled eaves course and plain tiled roof; the elliptical-headed doorway is hood-moulded. The inner cross-passage doorway has a moulded wooden frame and original framed and battened door. A small C16 wing to rear right, of uncertain purpose, has been amalgamated with the C17 work and contains a C17 staircase, with octagonal newels with ball finials and turned balusters. The parlour has a fine C17 oak overmantel with three sunk and enriched arcaded panels between fluted pilasters; the contemporary wainscoting is much restored. In the chamber above is a near-identical overmantel, but in pine. A nether parlour in the left-hand wing has a good C18 corner cupboard.
- When the C16 hall was demolished in early C17, its components (some moulded), were used to construct a two bay stable and hay-loft 20 metres to the west and attached to a contemporary barn. The house was known as Watering Farmhouse until mid C20. It was in the occupation of the Wingfield family c.1630, who probably carried out the alterations of that date.
- Listing NGR: TM0826948923

4.2 Assessment of significance of the existing barn

The Grade II listed building is a C17 6 bay barn with a small attached shed to the northern end and a wholly modern steel framed roof. The small shed is an oak framed structure and shows signs of having been extensively, or perhaps completely, rebuilt using reclaimed timbers. It is likely that this would have originally been used as an animal shed or small stable. The barn has two different modern lean-tos attached to its eastern side. The lean-to within the Tudor Grange's demise is used as a domestic garage by the Tudor Grange's owners. The second lean-to is under Watering Farm's ownership and is currently used for farm storage. Though it is a modern addition it is connected to the listed building and so is deemed listed, however it is an unsympathetic addition that detracts from the overall building.

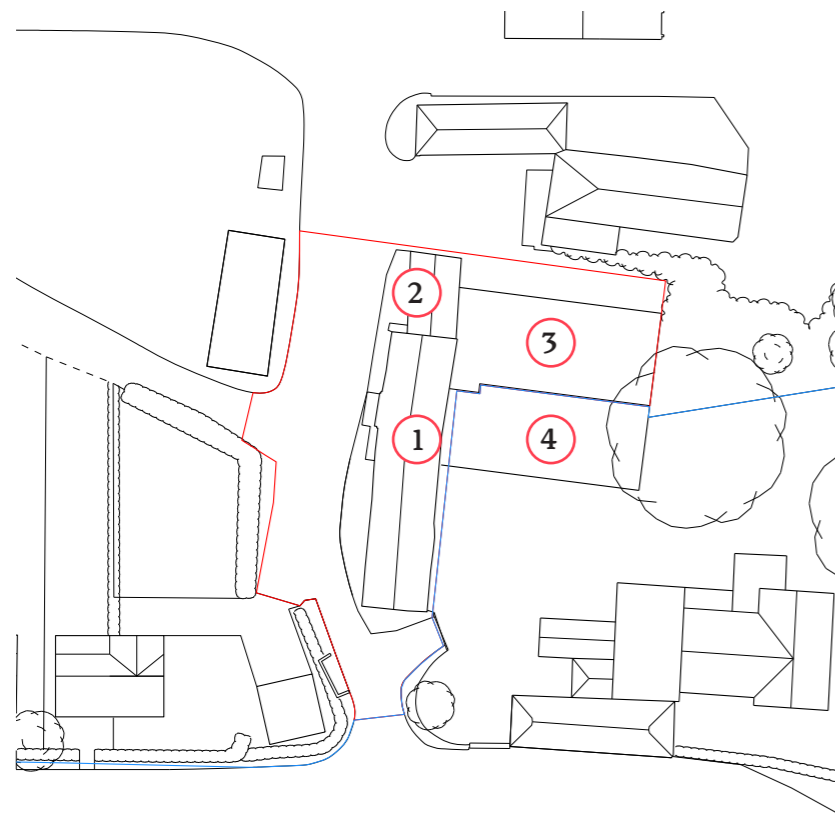
The main barn consists of a timber framed structure sitting on a brick

plinth. This brick plinth is visible externally in places, but is mostly concealed by cement render, and is in need of repairing, repointing and some stabilising. The north and south elevations are fully boarded with shiplap boards above the brick plinth, however the southern elevation is currently largely concealed with ivy and vegetation. The east and west elevations have a combination of boarding and cement rendered panels, which replaced the weatherboarding mentioned in the listing text. The boards themselves are an overall mix of some older and some newer boards.

The entrance to the barn has been modernised with a sliding steel framed door fitted for security purposes. The barn's modern roof has an artificially low pitch which is uncharacteristic of a C17 barn and detracts from the overall appearance and form of the listed barn.

Overall the poor condition of the external materials (the majority of which are modern replacements), the functional but unsympathetic additions such as the lean-tos and the steel door as well as the uncharacteristic roof all combine to have a cumulative effect of detracting from the listed building.

The full structural survey reports and accompanying photos have been included with this pre-application submission. A large proportion of the building fabric is non-historic. The remaining historic studs, eaves, tie beams, plinths and braces are mainly in reasonably good condition but there are some structural elements that are decayed, cracked and require replacement or significant repair in order for the barn to retain structural integrity (please refer to Structural report and HAT drawings: 174_WF1_HAT_PL_031



1. Main barn
2. Attached single storey shed
3. Attached modern lean-to (within application, proposed to remove)
4. Attached modern lean-to (outside applicant's ownership and therefore required to be retained)



View of west elevation

1. Brick plinth
2. Original weather boarding
3. Modern weather boarding
4. Modern cement render panels
5. Modern corrugated roofing
6. Modern steel framed sliding door
7. Modern lean-to



View of lean-to and small animal shed both attached to listed barn.

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and 174_WF1_HAT_PL_032).

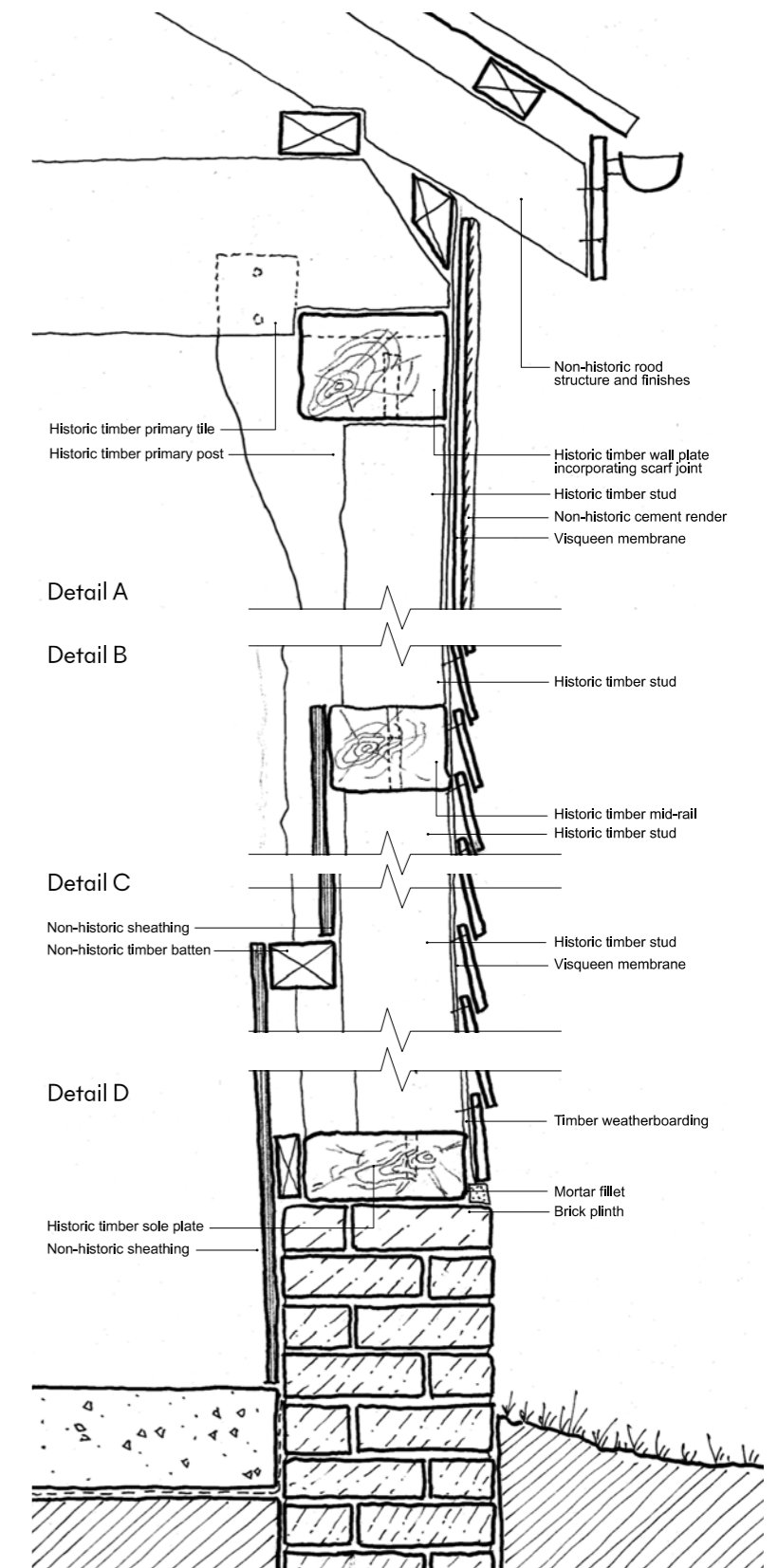
Internally the primary timber frame remains intact but with areas of decay and inappropriate repairs clearly evident throughout the barn:

- The third bay on the east elevation, opposite the current entrance, has been completely rebuilt and infilled with modern timber frame.
- Sections of the internal framing have been covered with plywood boarding throughout the barn to provide racking stability
- Black sheathing, sarking boards and felt have been introduced to different locations throughout the barn, to try to stop water ingress.
- In most sections the original wattle and daub infill panels have been removed / lost and replaced with sarking felt.
- Parts of the timber structure in the southern end of the barn have been affected by water ingress and show signs of both water staining and general deterioration.
- There is evidence that the wall climbing vegetation growing on the southern facade has also affected the wall internally
- Small sections of new studs, strengthening timbers and diagonal wind braces have been added to the original structure over time.

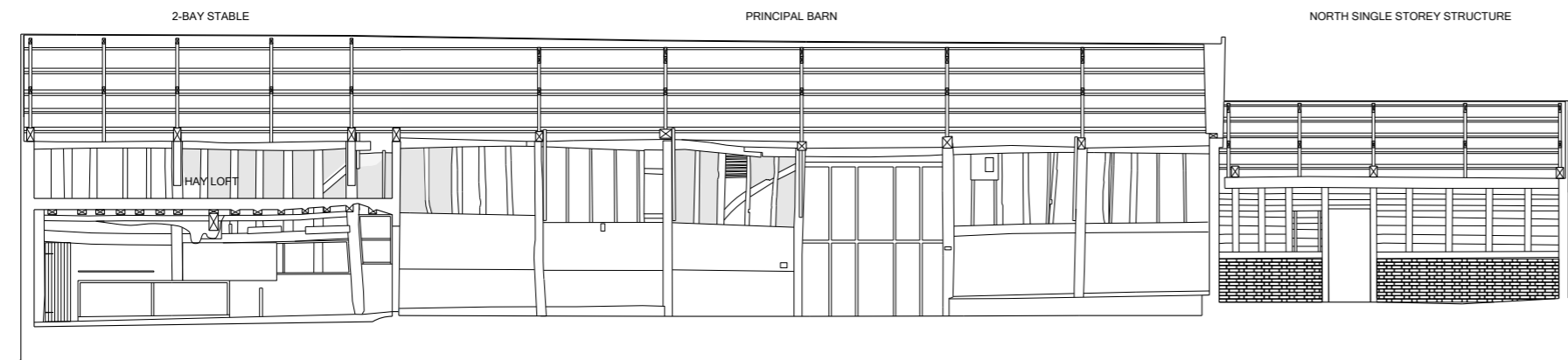
While it is clear from the summary above that an ad hoc approach has been taken to the maintenance and repair of the barn over the years there are still many significant and characterful historical features still visible within the barn.



Current condition of listed barn's interior - wattle and daub panel can be seen along with modern concrete blockwork alterations, replacement and original frame elements.



Typical section through existing fabric



Existing long section through barn

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Significant historic features

Oak structure: The structure in the last two bays of the southern end of the barn is different to the rest - here oak beams with moulded chamfers have been used. According to the listing details these, along with some of the floor joists and oak floor boards, may have been taken from the demolished hall range of the adjacent farmhouse (i.e Tudor Grange).



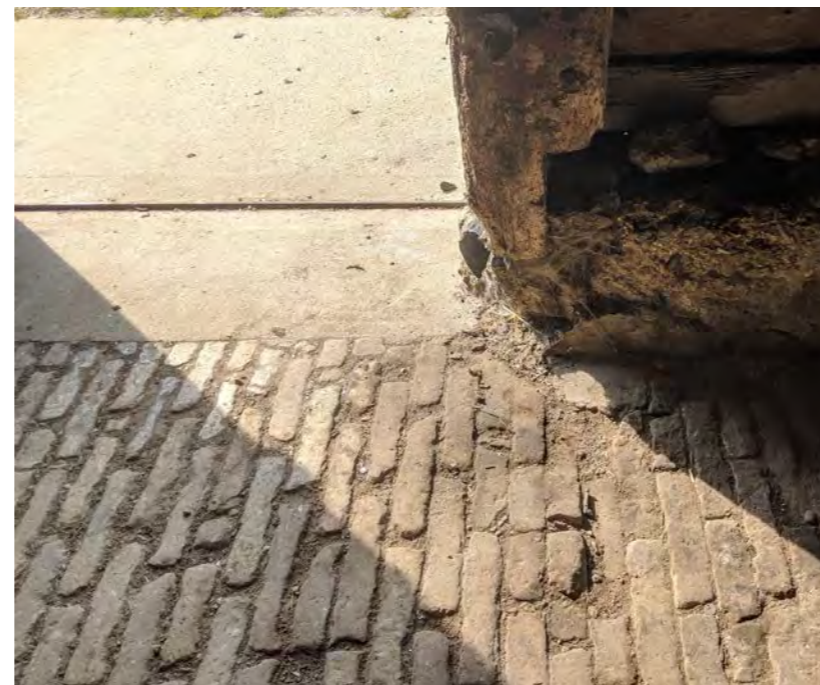
16th Century carpentry techniques: Though the barn is listed as a C17 structure the reused timbers date back to the C16 and there are also examples of C16 century carpentry techniques used. For example the curved down bracing seen in some bays was a C16 technique as were the edge-halved and bridled scarf joints that can also be seen in the barn.



Wattle and daub panels: Wattle and daub panelling was an infill technique that continued to be used up until the C19th. As noted on the previous page some of the barn's wattle and daub panels have already been lost, however there are still several panels still in place to the upper parts of some of the walls. Many of these panels however are in poor condition and require proper attention. Some of these panels show examples of close studding.



Brick floor: While the majority of the shed has a concrete floor there is an area of original brick flooring immediately inside the main entrance doors. It is believed that this may have been a threshing floor.



Summary of assessment of significance

The proposals directly affect both the listed barn itself and also the setting of the nearby heritage assets of the Tudor Grange and the Dairy/Bakehouse. The significance of the barn itself as a heritage asset includes:

- The overall building plan form, relationship of the elements (the northern attached shed and the main barn) and relationship to the neighbouring listed buildings, as evidence of the historic farmstead arrangement. This includes the brick dividing wall between the two lean-to sheds to the rear (east) of the barn as this survives in the position of the track and pen arrangement shown on historic maps
- The surviving primary and secondary frame of the listed building, and in particular the damaged frame to the southern stable/hayloft end with the reused moulded and chamfered beams, as evidence of their possible reuse from the Tudor Grange.
- The intact wattle and daub panels which, where they remain in suitably robust condition
- The brick threshing floor where this survives
- The use and retention of weatherboarded cladding where this survives.

However, the current condition of the barn makes it difficult for the observer to recognise it as a historic barn from the exterior at all, as its form and external materials have been so heavily altered. Aspects of the current condition that detract from the significance of the heritage assets include:

- The shallow pitched roof to the listed barn and attached shed, which does not represent the original roof form and significantly affects the understanding of the historic farmstead arrangement. This also affects the setting of the Tudor Grange and the Dairy/Bakehouse substantially. The extensive lean-to buildings to the east of the main barn, which cover what was formerly open farmyard areas
- The cement render on the exterior of the barn, which is modern and replaced the weatherboarding mentioned in the listing text
- The metal sliding door and frame on the listed barn
- The overgrown vegetation to the south elevation
- The inappropriate repairs to the listed barn internally and the overall poor condition of the physical fabric.

Watering Farm: Heritage, Design & Access Statement

Listed barn photos - north single storey structure interior



View 1: Looking south - wall between principal barn and the single storey structure to the north. All the studs, braces and weather boarding seen from this side of the building appears to be whitewashed (3.1.35, 3.1.40*)



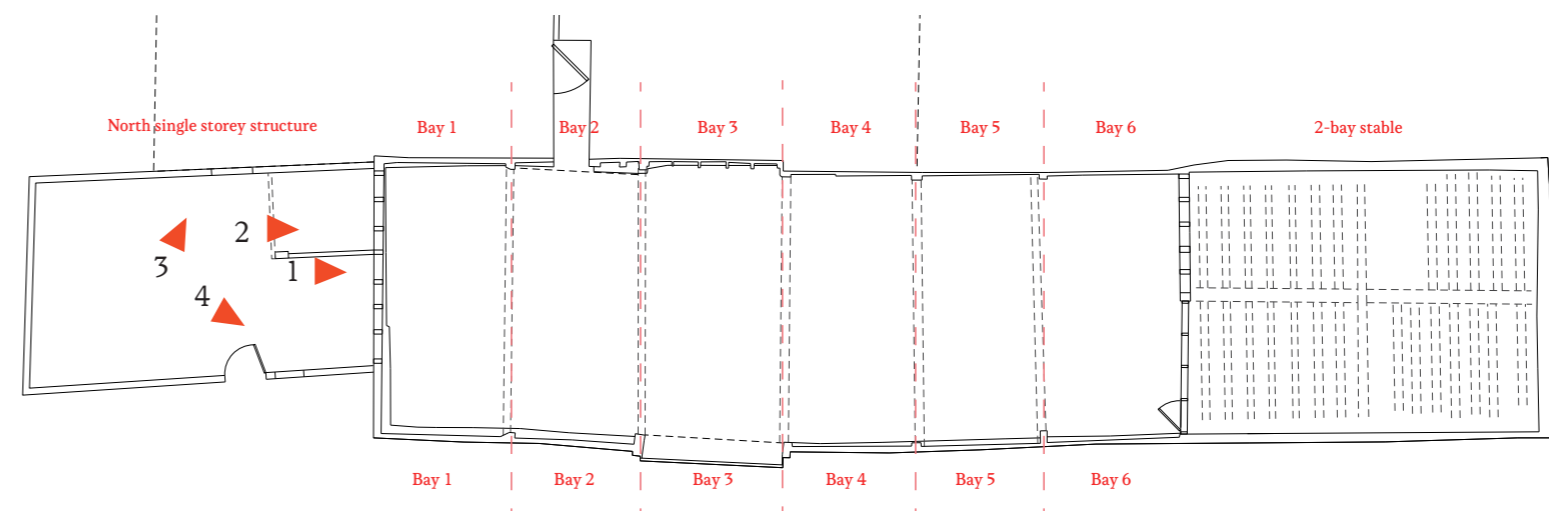
View 2: Looking south - historic stable wall and post seen (3.1.42*)



View 3: Looking east - existing single door opening (3.1.25*)



View 4: Looking west - existing entrance to the single storey structure. Stud are approximately 1.5m high and sit on a sole plate on the higher brick plinth (3.1.45, 3.1.46*)



*References from the Structural Report

Watering Farm: Heritage, Design & Access Statement

Listed barn photos - principal barn interior 1/3



View 1: Looking north - plywood boarding covers the framing, rendered brick plinth seen on this elevation (3.2.26, 3.2.27*)



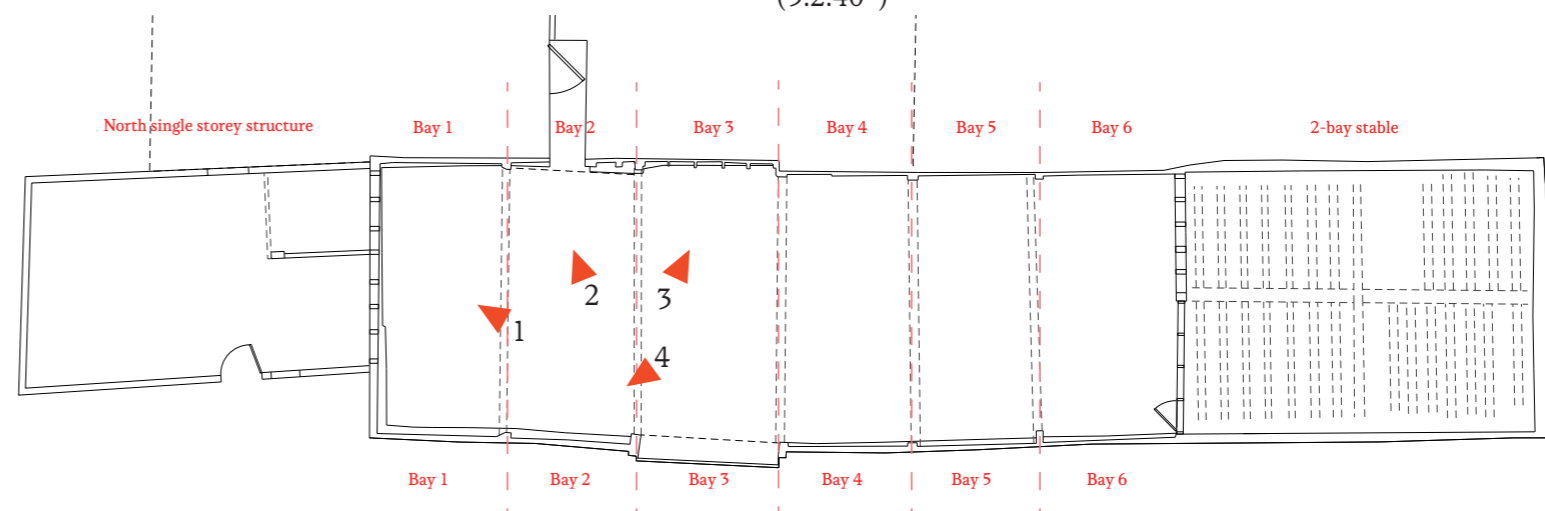
View 2: Looking east (Bay 1, 2 and 3) - historic studs, beams and mid rails seen on bays 1&2. Non-historic opening seen on bay 2 (3.2.37, 3.2.38, 3.2.39*)



View 3: Looking east (Bay 3) - bay is rebuilt and non-historic (3.2.40*)



View 4: Looking west (Bay 1 and 2) - studs at upper level covered in sarking felt, principal post between bays 1&2 is in good condition but the bracing is non historic (3.2.55*)



*References from the Structural Report

Watering Farm: Heritage, Design & Access Statement

Listed barn photos - principal barn interior 2/3



View 1: Looking west - Barn entrance (Bay 3), non-historic double door opening (3.2.60*)



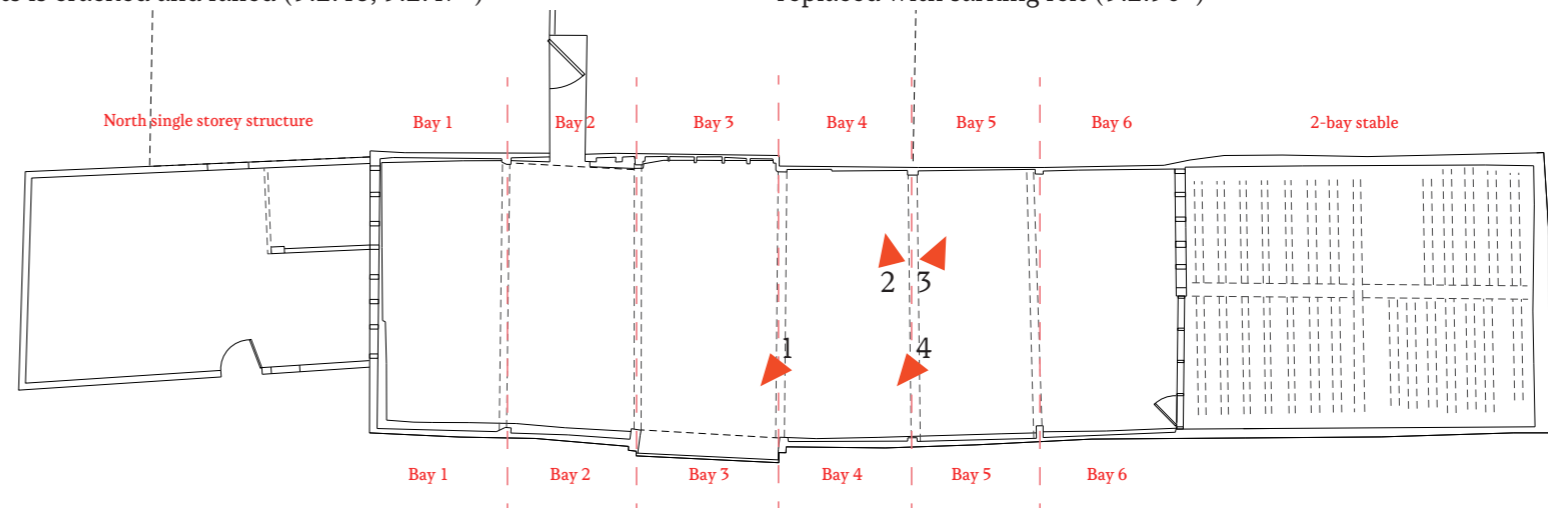
View 2: Looking east (Bay 4) - Mid rail plate has dropped and one of the posts is cracked and failed (3.2.46, 3.2.47*)



View 3: Looking east (Bay 5) - timber panels pulled out and replaced with sarking felt (3.2.50*)



View 3: Looking west (Bay 4) - Timber post between bays 4&5 shows sign of decay and failure and it is not connected to tie beam



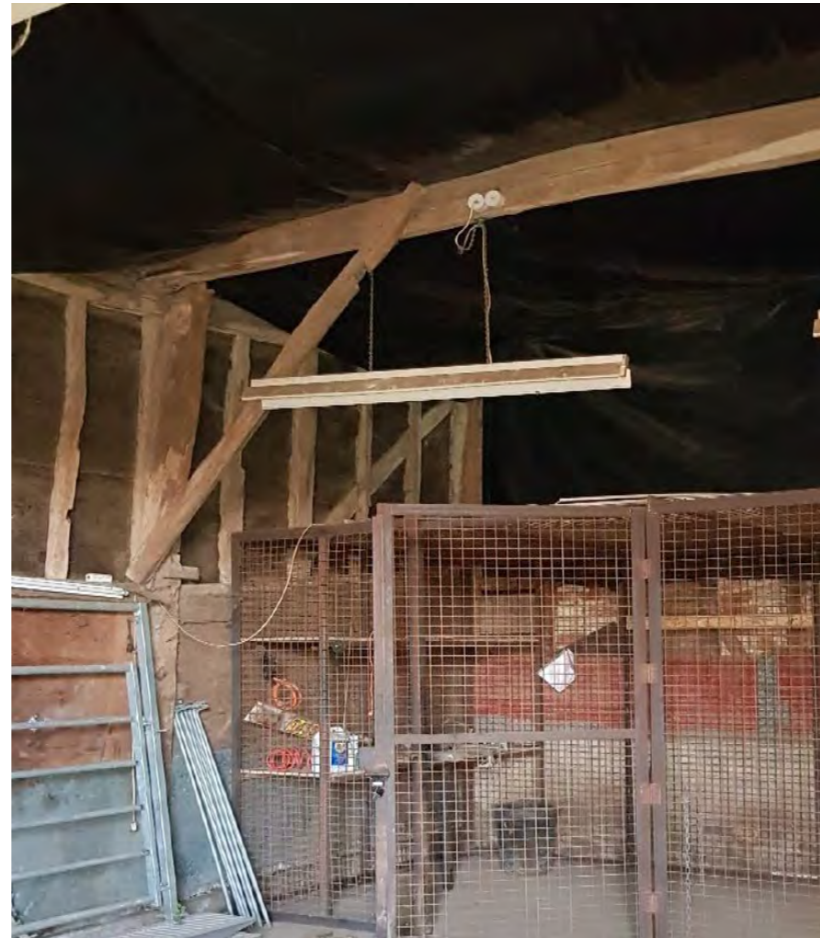
*References from the Structural Report

Watering Farm: Heritage, Design & Access Statement

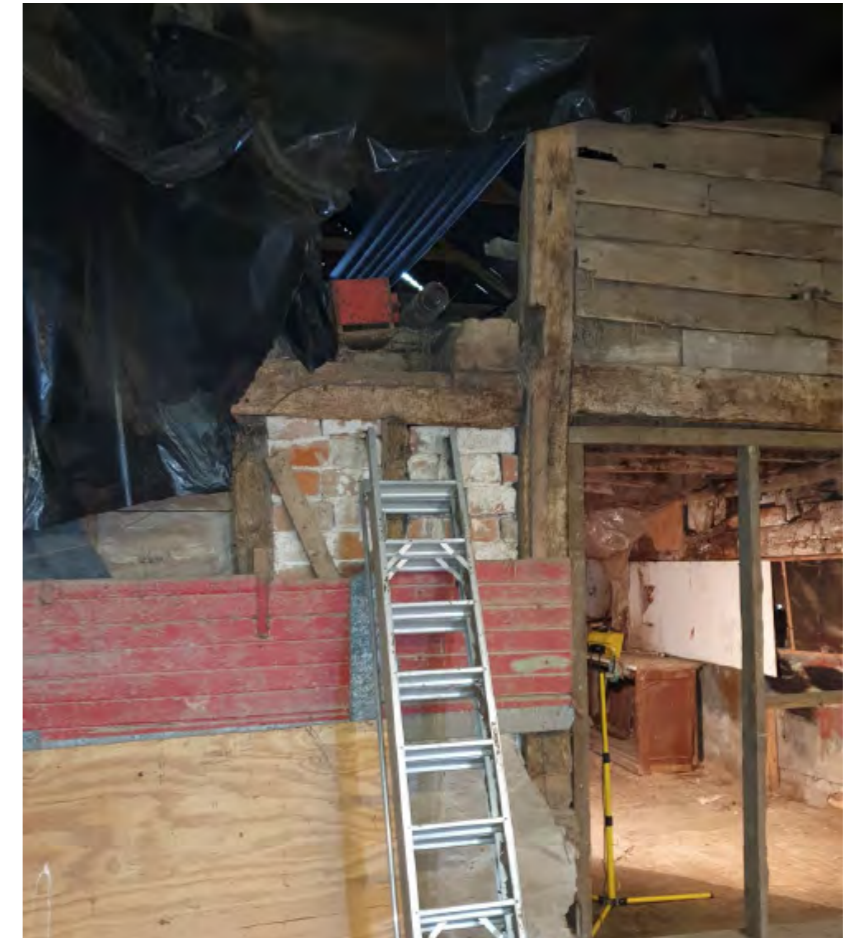
Listed barn photos - principal barn interior 3/3



View 1: Looking west (Bay 5) - There is one original stud seen on the upper level, others replaced later (3.2.64*)



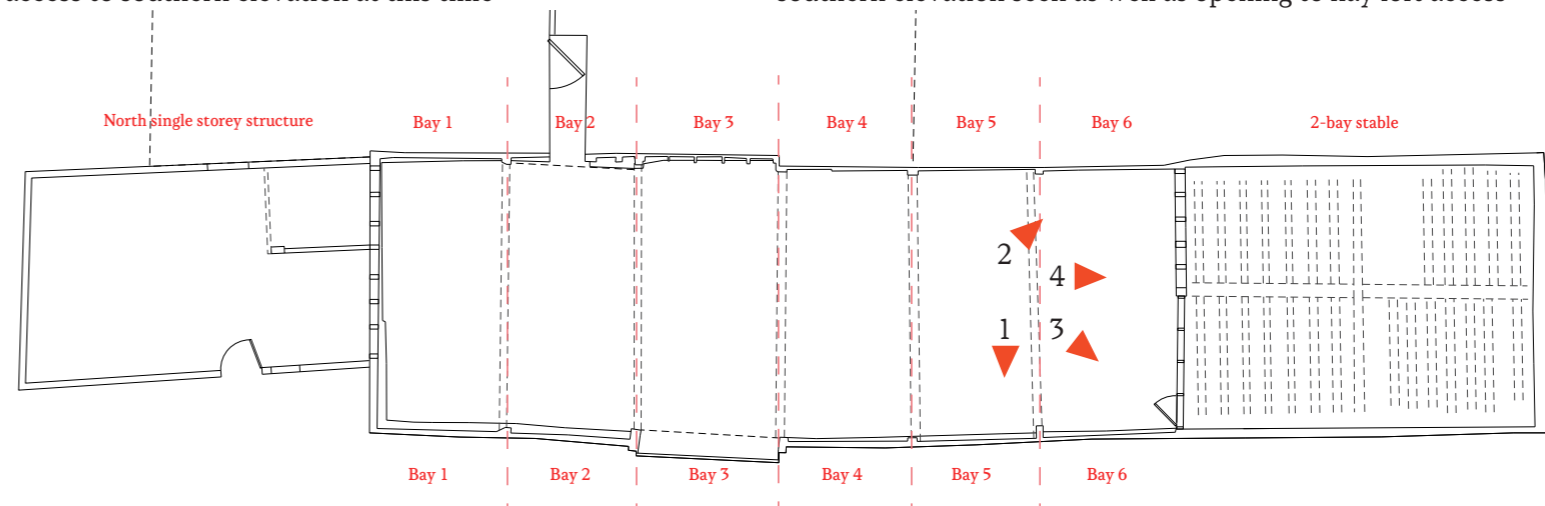
View 2: Looking east (Bay 6) - Survey undertaken on 11 October 2019 - no access to southern elevation at this time



View 3: Looking south - Survey undertaken on 19 May 2021 - southern elevation seen as well as opening to hay loft access



View 4: Looking south - sarking felt covering upper level



*References from the Structural Report

Listed barn photos - 2-bay stable interior



View 1: Looking southwest - Timbers been affected by rainwater ingress, studs and posts deteriorated (3.2.73*)



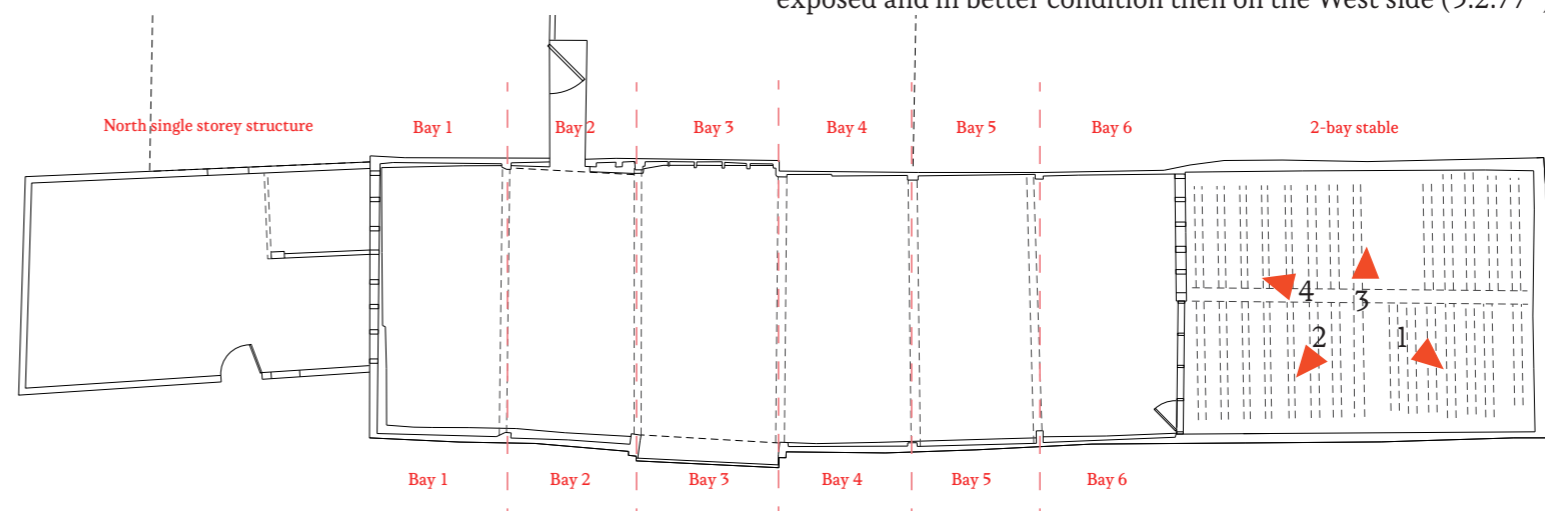
View 2: Looking west - non-historic timber material seen as well as plastic sheeting, sarking board and felt (3.2.75*)



View 3: Looking east - historic material on this elevation is exposed and in better condition than on the West side (3.2.77*)



View 4: Looking northeast - historic boarded wall behind bituminous felt and battening (3.2.90*)



*References from the Structural Report

Watering Farm: Heritage, Design & Access Statement

Listed barn photos - hay loft at south end of barn/2-bay stable



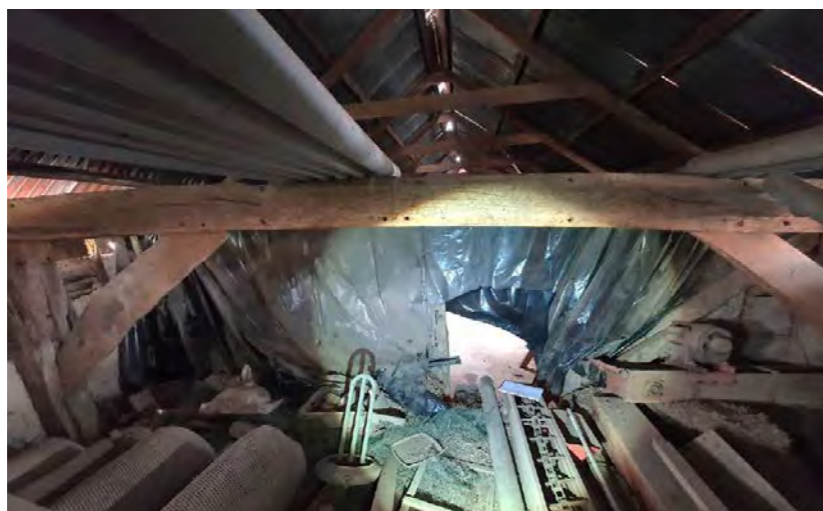
View 1: Looking south- vegetation growth throughout South facade



View 2: Looking west - timbers decayed at high level and water ingressed causing collapse of the lower section to SouthWest corner



View 3: Looking east - elevation externally wrapped in a bituminous felt, studs and wall plates in reasonable good condition



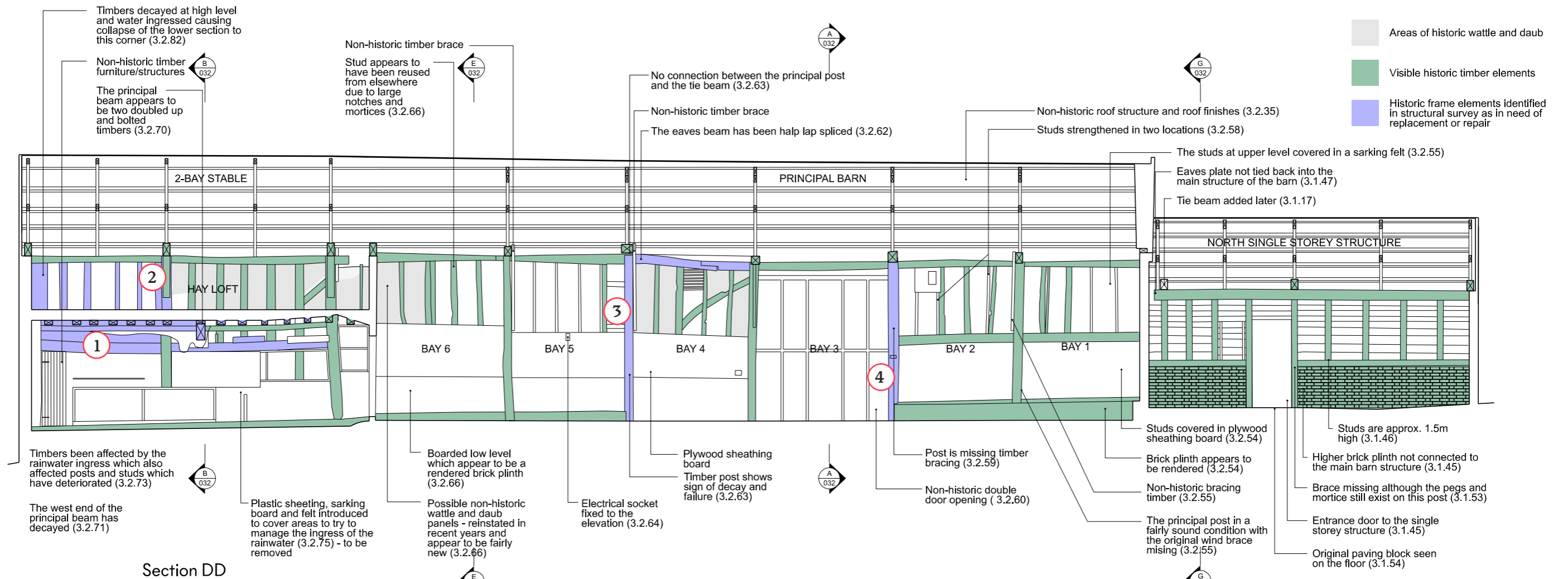
View 4: Looking north - principal tie beam running across the first floor, historic boarded wall cover in plastic sheeting, only acces to hay loft is visible



*References from the Structural Report

Watering Farm: Heritage, Design & Access Statement

Listed barn - condition of west elevation



Section DD



1 Timbers affected by the rainwater ingress, posts and studs deteriorated



2 Timbers decayed at high level and water ingress causing collapse (3.2.82*)



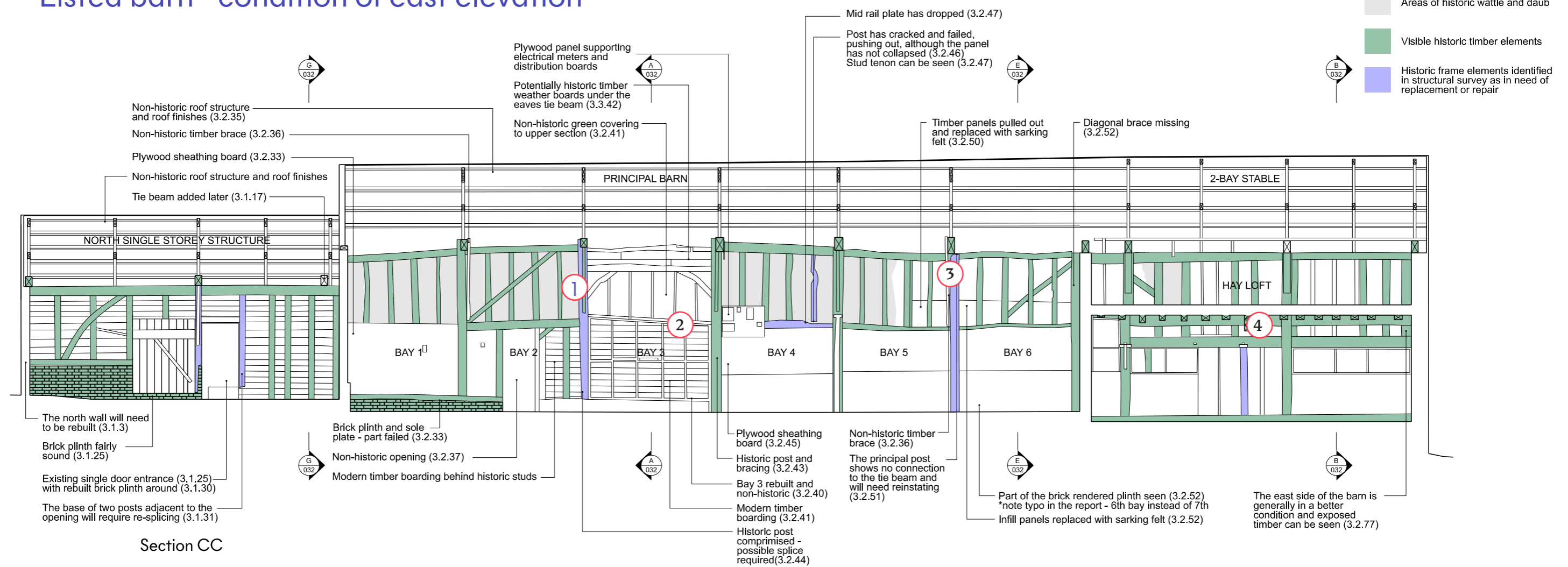
3 Timber post shows sign of decay and failure (3.2.73*)



4 Post between bays 2&3 is inadequate (3.2.55*)

* References from the Structural Report

Listed barn - condition of east elevation



Section CC



1 Historic post compromised - possible splice required (3.2.44*)



2 Bay 3 rebuilt and non-historic (3.2.40*)



3 The principal post shows no connection to the tie beam and will need reinstating



4 Exposed timber seen - elevation wrapped in a bituminous felt (3.2.77, 3.2.84*)

* References from the Structural Report

5. Best practice regarding conversion of historic barns

Historic England gives advice for sustainable developments and the conservation of traditional farmsteads and their buildings through the planning and design process. Advice is given in accordance with the principles set out in the National Planning Policy Framework. The NPPF places good design, enhancement of local distinctiveness and conservation of the historic environment at the heart of sustainable development in rural areas (Adapting Traditional Farm Buildings by Historic England, 2017)

As set out in Historic England's guidance, getting the design right is crucial for sensitive historic sites. Key issues to consider are:

- setting, boundaries and curtilage, through improvement of access, provision of car parking and gardens, development of prominent viewpoints and elevations
- historic buildings, depending on their form and scale, the materials from which they are constructed, the demand for more new openings to provide light and the subdivision of amalgamation of spaces
- habitats for wildlife

When it comes to adapting farm buildings there are key principles to

follow in order to achieve the best possible solution, including:

- understanding the construction and condition - taking surveys to help inform of the state of the building
- respecting the architectural and historic interest of the building - including the balance between the practical requirements of a new use and protection of the historic character of the existing and its setting
- understanding the setting - good relationship with the landscape
- achieve high standards of design, repair and craftsmanship - carrying out sensitive design



New residential building celebrates barn by exposing historic fabric (example from *Adapting Traditional Farm Buildings by Historic England*)



Use of timber weatherboarding as well as use of existing brick plinth, with discreet new window openings along with larger glazed screen elements. (example from *Adapting Traditional Farm Buildings by Historic England*)

Watering Farm: Heritage, Design & Access Statement

- minimising alterations and loss to significant historic fabric - retention of as much significant historic fabric as possible
- retaining distinctive features
- considering how to introduce daylight without compromising the building's external appearance
- considering the level of subdivision
- considering how services and insulation will be incorporated - building regulations (Part L)
- re-using and retaining minor outbuildings which are important evidence of how a farmstead evolved over time

Learning from best practice

The images on these pages show examples from Historic England's guidance showing how historic fabric was successfully retained or appropriately and carefully repaired/replaced. The proposal for Watering Farm barn has followed similar principles:

- **preservation of elements of historic structure that are in good condition** (walls, plinths, studs, mid rails, tie beams) - walls were generally constructed of locally available materials and the materials require their own repair techniques. Use of existing openings and transforming them to glazings is also a good way of not compromising too much of the existing fabric in order to introduce more daylight. By keeping and exposing existing fabric, buildings provide evidence of their former use which is very important (repairing and exposing historic plinth visible externally and tie beams, mid rails and studs internally).
- **replacing historic fabric with new same materials** - historic facade timber replaced with new weatherboarding in order to retain distinctive features
- **introducing new corrugated metal roof** that replaces an old barn one (which is the case at Watering Farm barn as the roof is non-historic and in bad condition). Other advantage of the new roof is adding rooflights to get more daylight without compromising facade.

A full assessment of the proposals against the best practice guidance from Historic England is given at the end of this document.



Timber framed barn has had a new steel and corrugated metal roof added with long linear rooflight



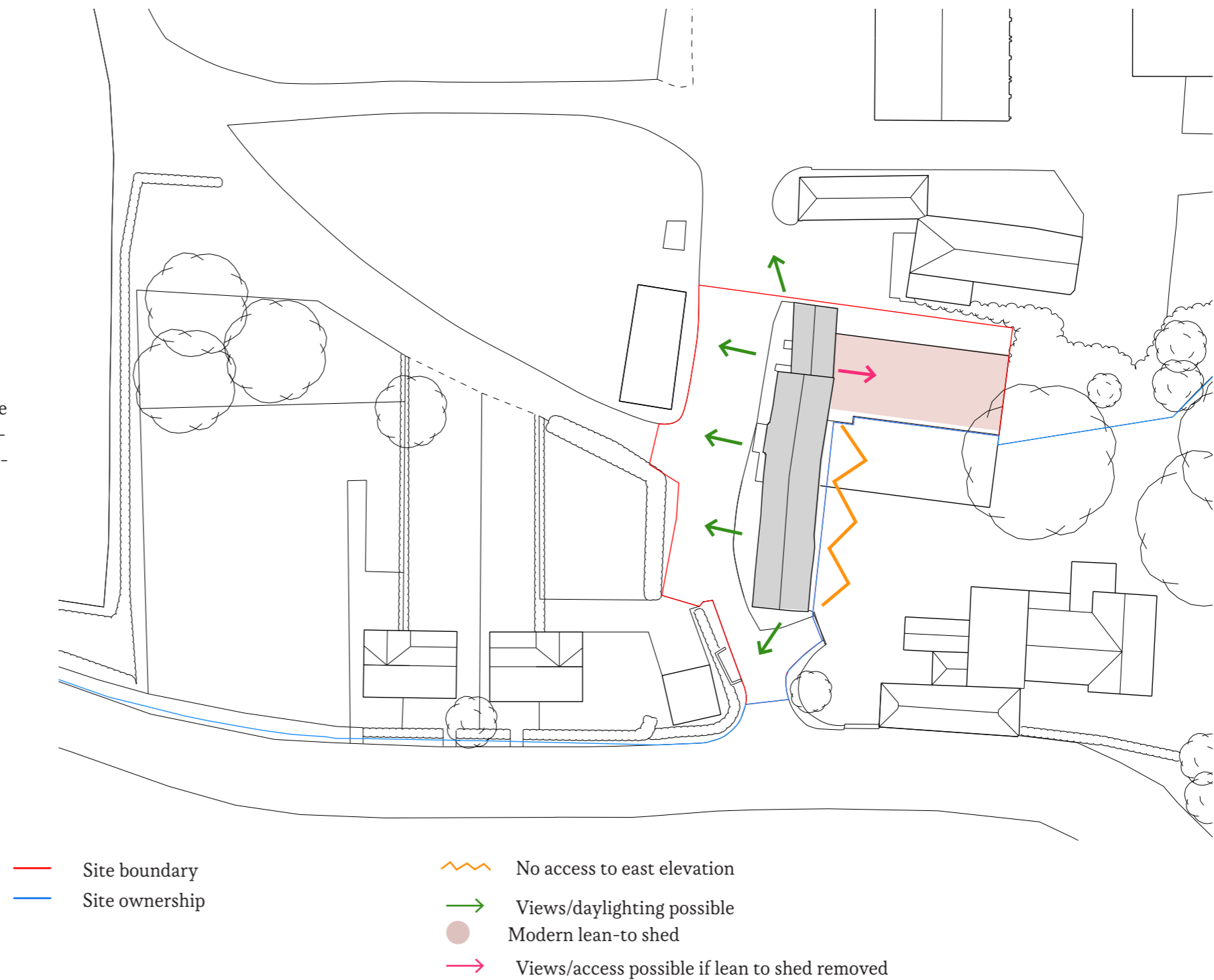
Example of glazed openings and low profile rooflights as part of barn conversion

6. Opportunities and constraints

6.1 Site constraints

The ownership boundary which means that access to the barn is only possible from the north, west or south. Access into the gable ends would be inappropriate as there are no existing openings in the gables and historically barns of this type would always have been entered along their long sides. The ownership boundary also means that windows or rooflights cannot, in the main, be inserted into the west elevation. Openings for daylight therefore will, by necessity, be on the more visible west elevation primarily.

The barn sits close up to the access route with little opportunity for private amenity space to the west. This is typical of barns in a farmyard cluster but presents some challenges for a dwelling where private amenity space is required. The removal of the modern lean-to shed that is within the applicant's ownership presents a good opportunity to create both a private garden for the barn and also for some windows and rooflights to be sited on the less visible eastern side of the building.

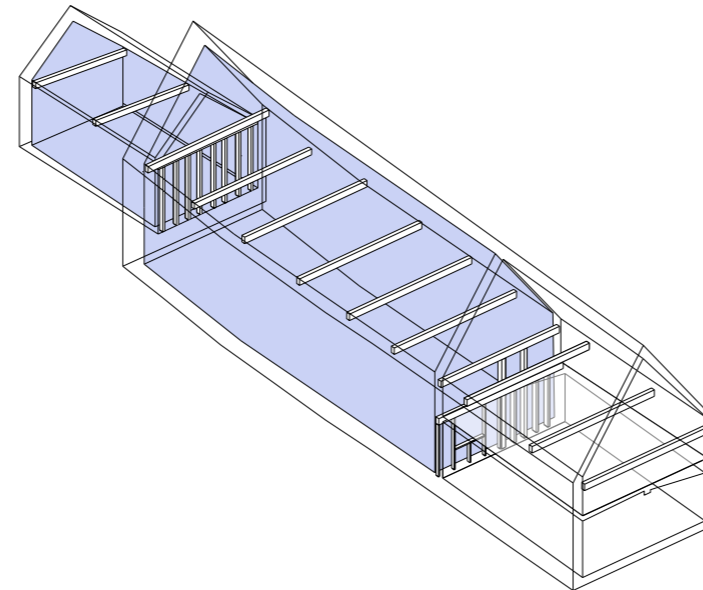


6.2 Opportunities and constraints of existing fabric

The existing barn fabric constrains its potential conversion in a number of ways. The barriers to a successful conversion include:

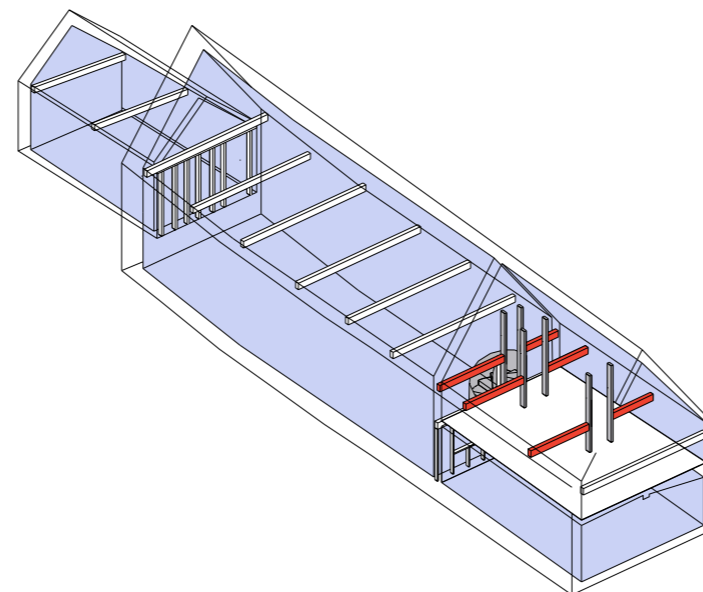
- The natural entrance into the barn is to reuse the existing door into the small attached shed to the north, while replacing the existing large scale sliding door into the main barn with glazing to introduce daylighting. However the studs between the northern attached shed and the main barn are too closely spaced to allow a Part M compliant door.
- The southern part of the barn under the hayloft is currently inaccessible except by stepping through the unboarded studs in the dividing wall. While the studs on the western end of the dividing wall are not historic, using that area to create a proper door or opening into the southern end of the barn would mean that the circulation space would run along the western elevation and the rooms would back onto the eastern elevation. The rooms would therefore have no natural light as window openings cannot be created on that elevation due to the party wall condition. The older studs forming the partition between the southern (hayloft) end of the building and the main part of the barn are too closely spaced to allow a Part M compliant door or opening to be introduced without removing any studs. To create usable accommodation in this area therefore means that 1 no stud needs to be removed.
- Access to the hay loft is currently by ladder and there is no opening for a stair in the floor of the hayloft. As it would be undesirable to make an opening in the floor structure here, because this is considered one of the elements of prime importance, access to the hayloft will need to be a new independent stair outside the line of the wall dividing the hayloft from the main part of the barn. Due to the location of tie beams within the partition wall, access from a stair into the hayloft with adequate headroom is not possible.
- The tie beams generally throughout the barn are too low to allow a first floor to be introduced beneath them while allowing adequate headroom.

The diagrams on the right show the effect of this on the potential conversion of the barn. Without removing any of the historic frame elements, very limited accommodation can be created and this does not represent a viable conversion.



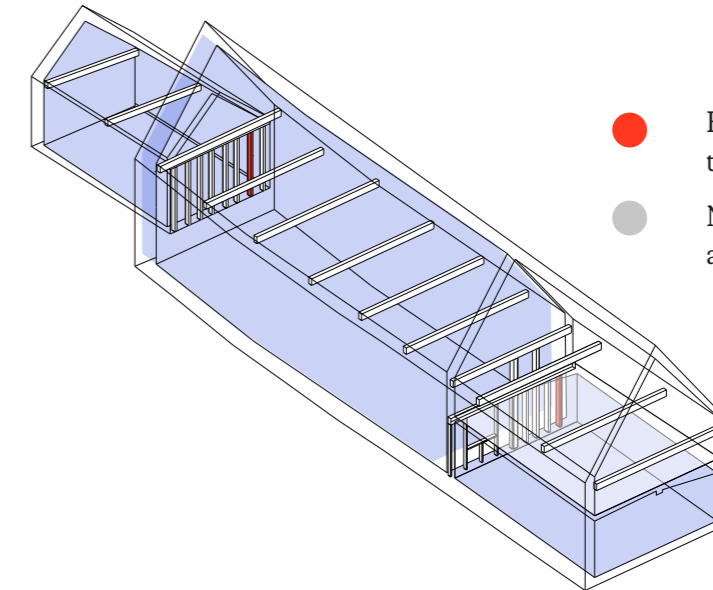
No removal of any historic fabric

Historic wall studs are too closely spaced to allow a compliant door opening into the southern part of the barn from the northern attached shed. The main entrance would have to be centrally into the barn which is not desirable from a functional perspective, not providing any entrance lobby.



Adaptation of tie beams in southern bay

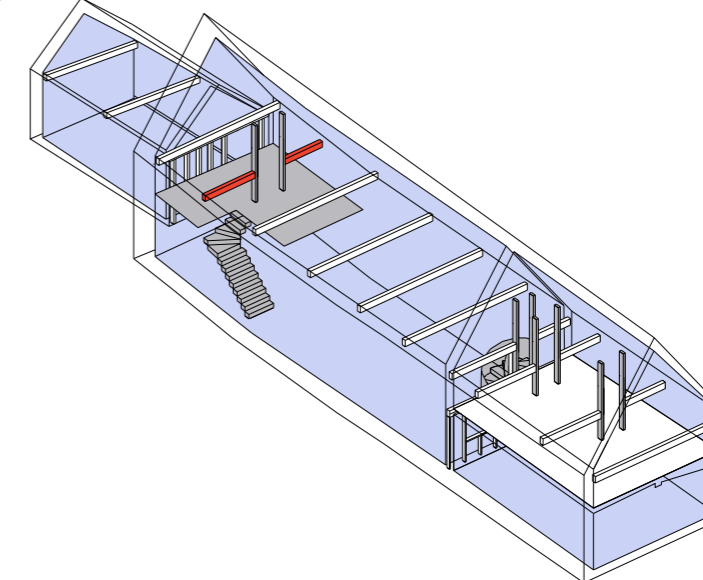
Historic tie beams to be cut and supported by new queen post arrangement to allow access into, and use of, the hay loft area creating a generous master bedroom suite.



- Historic frame members to be altered/removed
- New structure - floor and queen posts

Removal of 2no historic studs

Removing one studs and one cross bracing member in the wall between northern shed and main barn means that the entrance to the barn can be through the northern shed. Removing one stud in the wall between the main barn and the southern stable area means access to the ground floor area in the southern part of the barn is possible but access to the first floor is not achievable without further adaptation of the frame. A 2 bedroom home is achievable but neither bedroom is especially generous.



Most viable conversion

Adaptation of 1no tie beam in the northern part of the barn allows a mezzanine floor to be inserted with minimal impact on the historic fabric, creating a viable good quality family home.

7. Final proposal

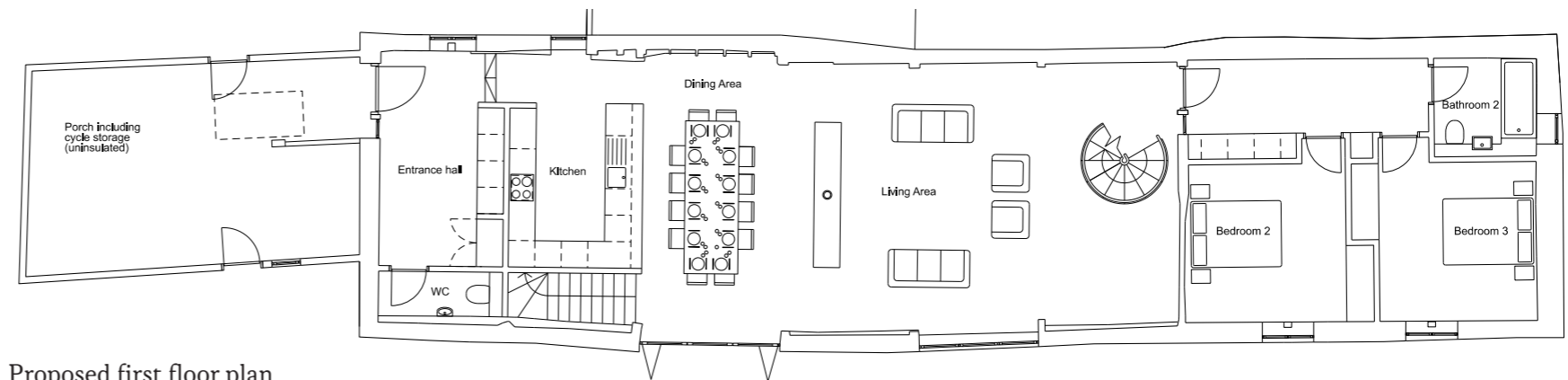
The final proposal takes a sensitive approach where interventions in the historic frame elements are limited to those necessary to create a viable and good quality family home. New building elements are proposed where historic fabric does not exist, and are designed to enhance the quality of the space while maintaining the historic characteristics and features of the barn. The removal of the modern low pitched roof and its replacement with a more appropriate steeper pitched roof reinstates the original profile and volume of the barn.

The additional ceiling height created by the steeper pitch allows for the existing hay loft to be converted and an additional mezzanine space to be created at the opposite end of the barn. These spaces bookend and overlook the central full height space, which forms the main kitchen / dining / living area of the home. By allowing the central bays to remain full height and open, the barn-like quality of the building is both preserved and celebrated, along with the historic wattle and daub panels visible in this central space.

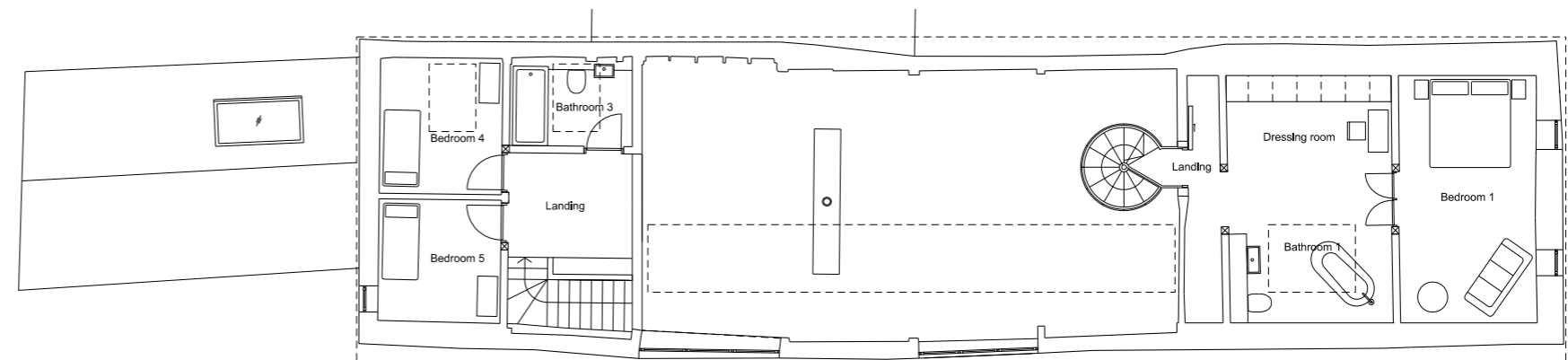
New openings are kept to minimum, added where needed to both facilitate and enhance the habitation of the barn and in locations where historic fabric will not be impacted. New windows and tall glazed screen doors are aluminium-timber composite framed, while painted timber doors with glazed panels form the more domestic scaled front and back doors. Rooflights along the western ridge of the roof allows light to enter into the central volume of the barn without any alterations to the existing fabric. The position and design of the rooflights have been adjusted in line with pre-application comments received.

Alterations to historic frame and fabric elements are, in total:

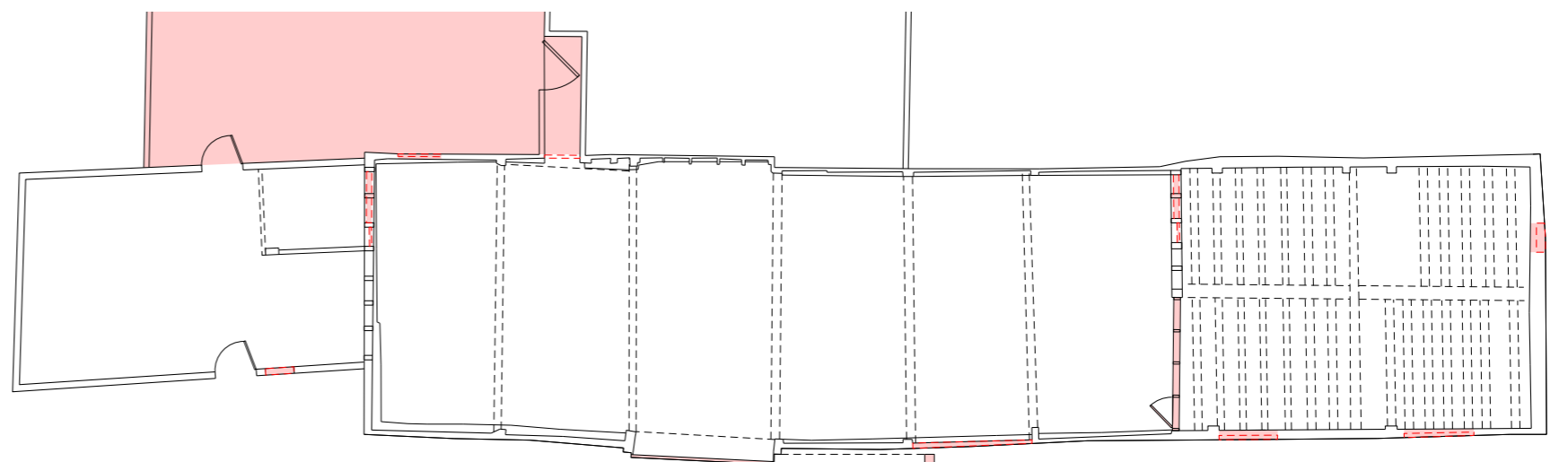
- Removal of one stud between the northern attached shed and the main barn, so that the two areas can be connected to create an entry point into the barn.
- Removal of one stud within the wall between the main barn and the southern 'stable' end to allow this area to be used for accommodation.
- Removal of part of the tie beams in the hayloft area to allow the historic mezzanine floor to be used for accommodation with adequate headroom.
- Removal of part of 1 no tie beam in the southern part of the barn to create mezzanine accommodation with adequate headroom.



Proposed first floor plan

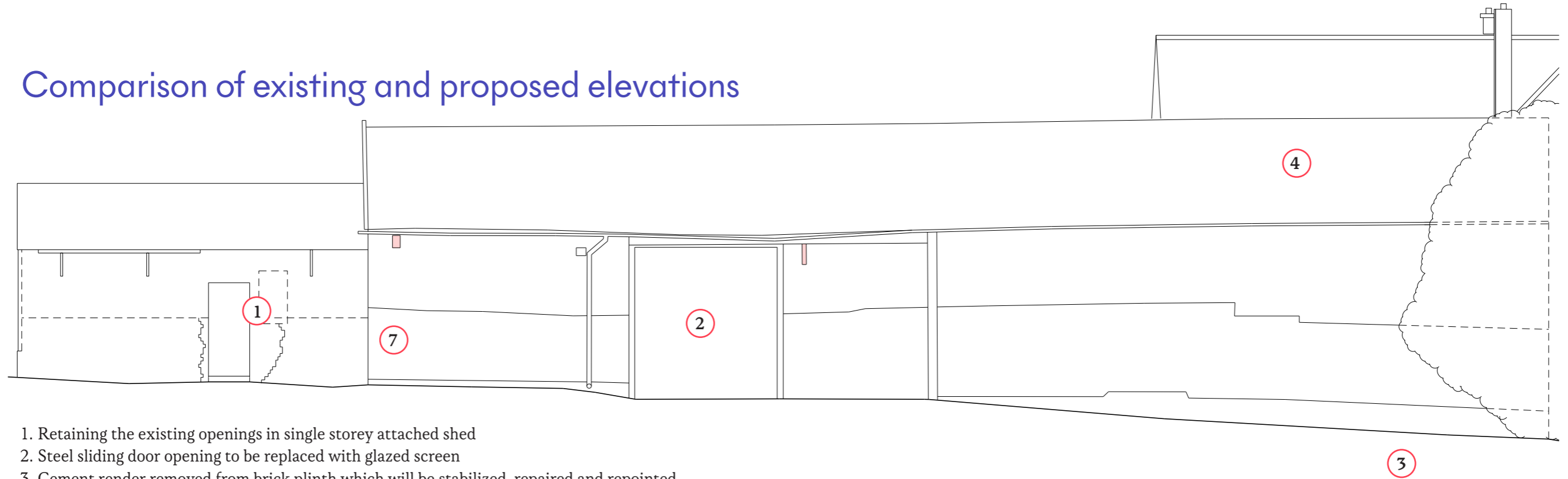


Proposed ground floor plan

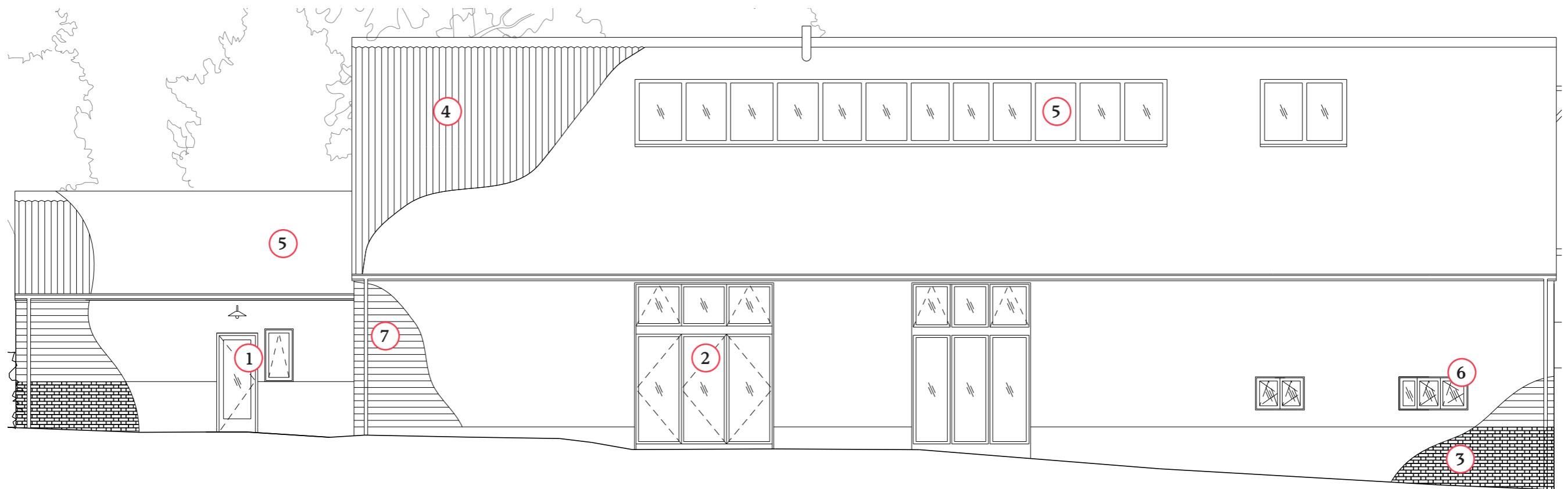


Existing ground floor plan showing extent of fabric to be removed or altered

Comparison of existing and proposed elevations



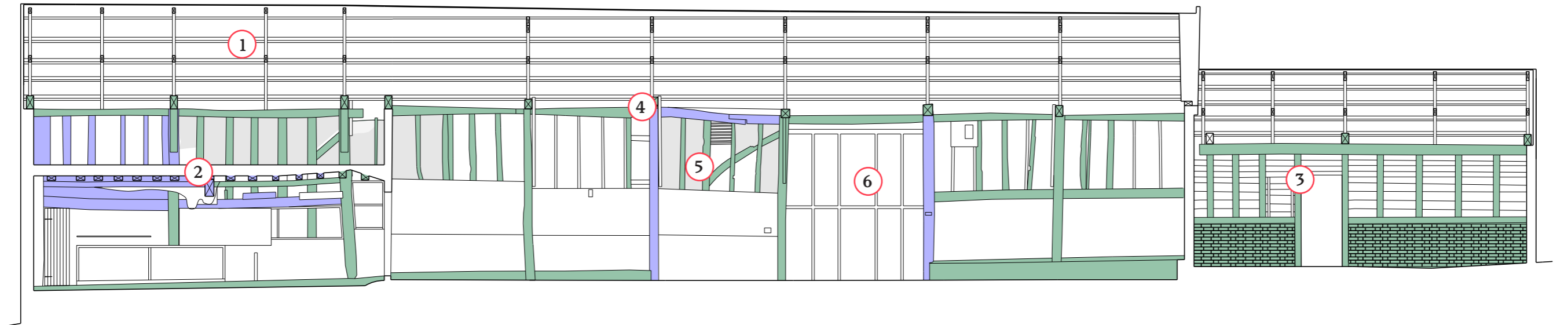
1. Retaining the existing openings in single storey attached shed
2. Steel sliding door opening to be replaced with glazed screen
3. Cement render removed from brick plinth which will be stabilized, repaired and repointed
4. Reinstatement of a steeper pitched roof in S profile sheeting to retain an agricultural appearance.
5. Rooflights located as close to the ridge as possible and of low profile design
6. Fenestration kept to minimum and designed with regard to location of historic studs and beams
7. Black weatherboarding above plinth level.



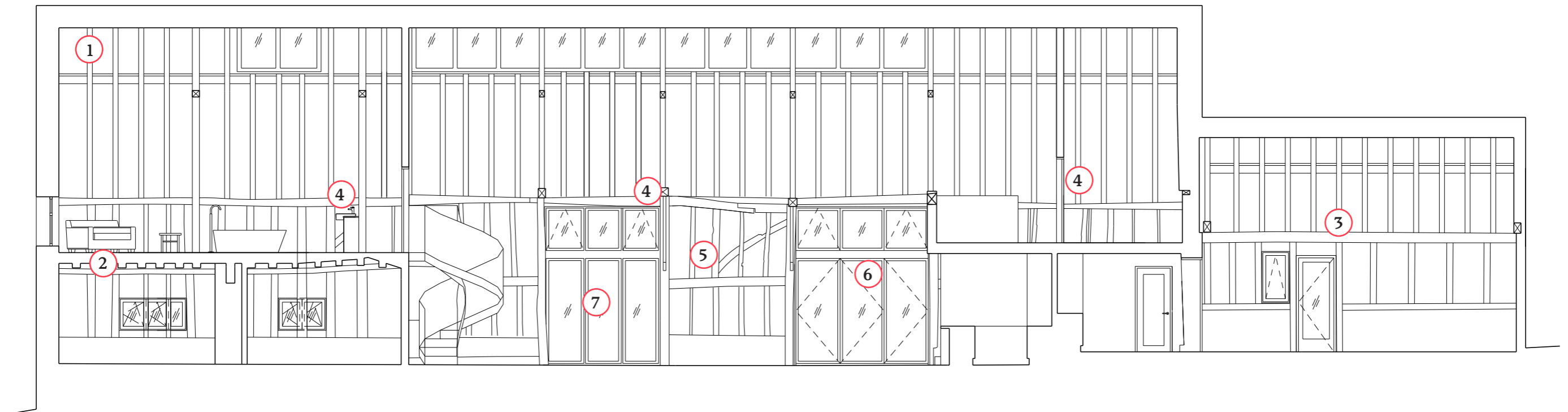
Key

- Areas of historic wattle and daub
- Visible historic timber elements
- Historic frame elements identified in structural survey as in need of replacement or repair

Comparison of existing and proposed internal elevations/sections



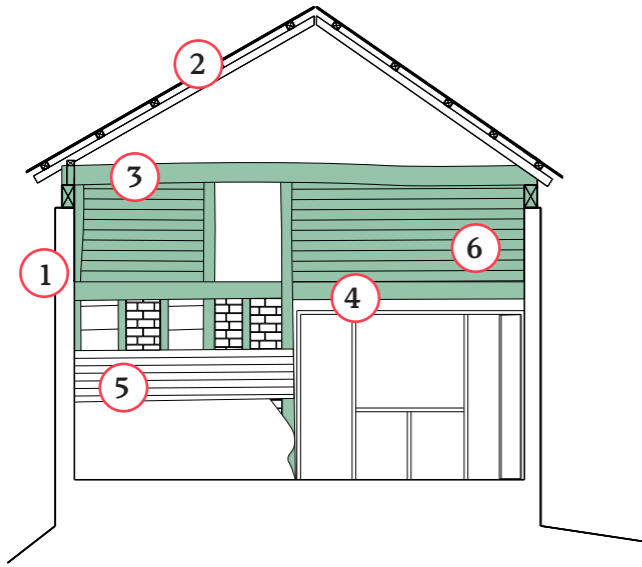
1. Reinstatement of a steeper pitched roof with an oak frame
2. Retaining historic mezzanine floor in 2-bay stable
3. Retaining existing single floor structure - entrance for the main building and garden
4. Retaining historic tie beams with only minor alterations to allow mezzanine to be accessed and used
5. Retaining historic studs and wattle and daub panels
6. Sliding door opening to be replaced with glazing
7. Replacing area of non historic infill framing with new glazed screen.



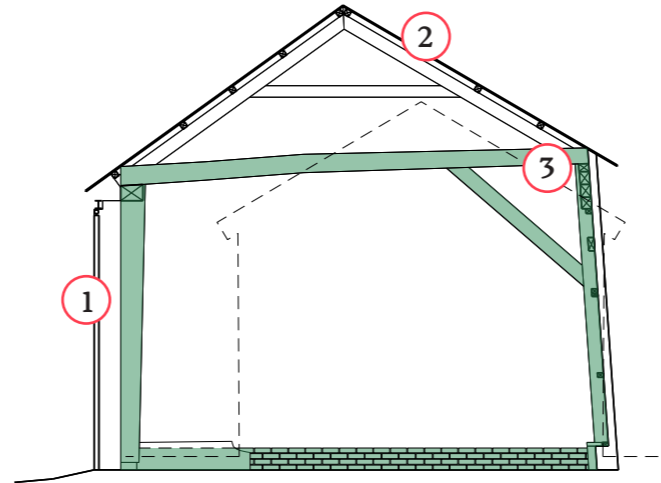
Comparison of existing and proposed internal elevations/sections

Key

- Areas of historic wattle and daub
- Visible historic timber elements
- Historic frame elements identified in structural survey as in need of replacement or repair

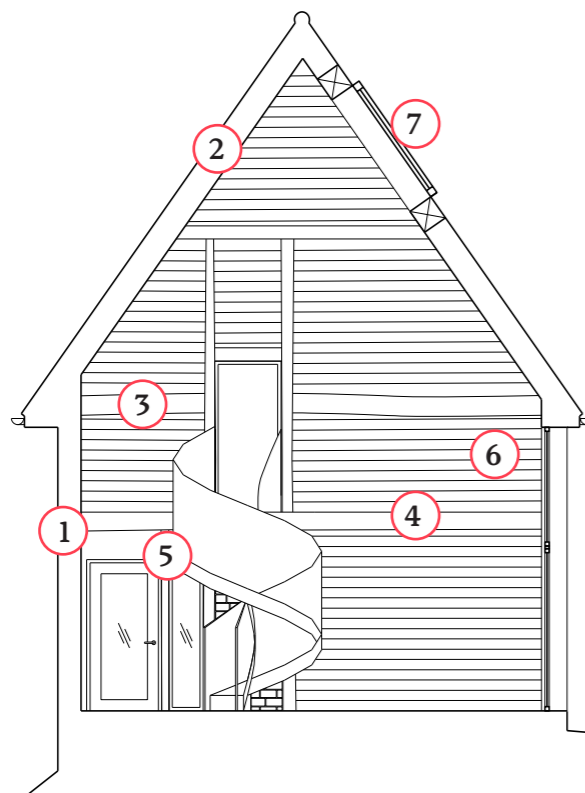


Section EE - existing

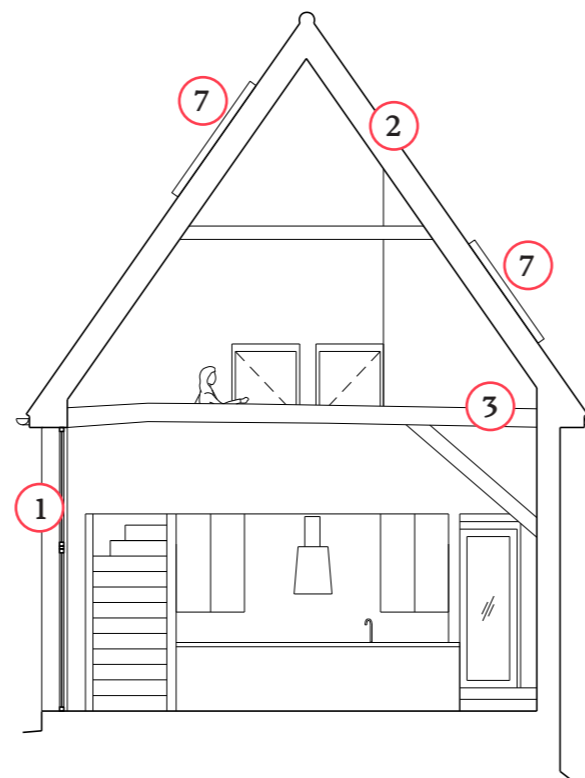


Section AA - existing

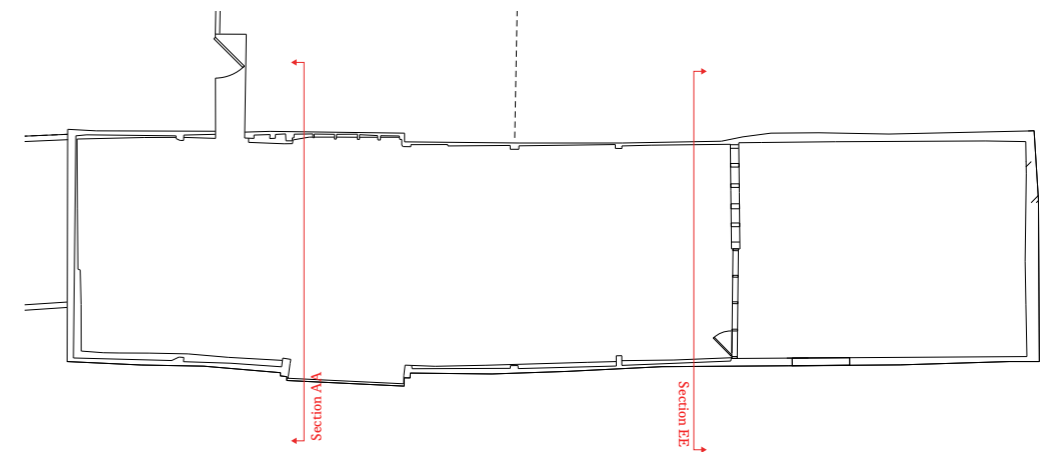
1. Retained historic timber frame with insulation added between existing timbers and to the outside of the frame which is re-clad in black weatherboarding
2. Reinstatement of a steeper pitched roof
3. Retention of historic tie beams with very limited alterations
4. Repairing and restoring the historic timber and floor structure in 2-bay stable (south end of the barn)
5. Removing 1 no stud within the partition wall to create an opening into the south side of the barn at ground level.
6. Keeping existing historic fabric/walls
7. Rooflights on new roof introducing light without compromising the building's external appearance



Section EE - proposed



Section AA - proposed



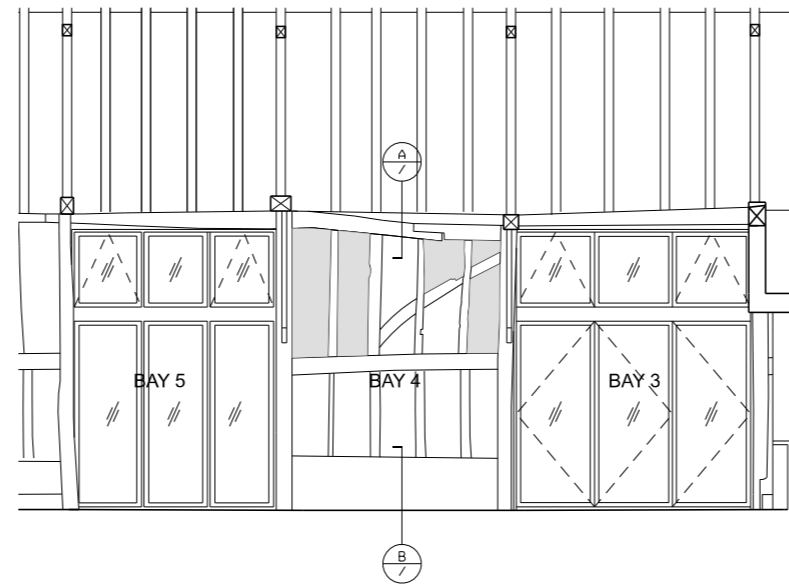
Existing plan

Detailing approach to external walls

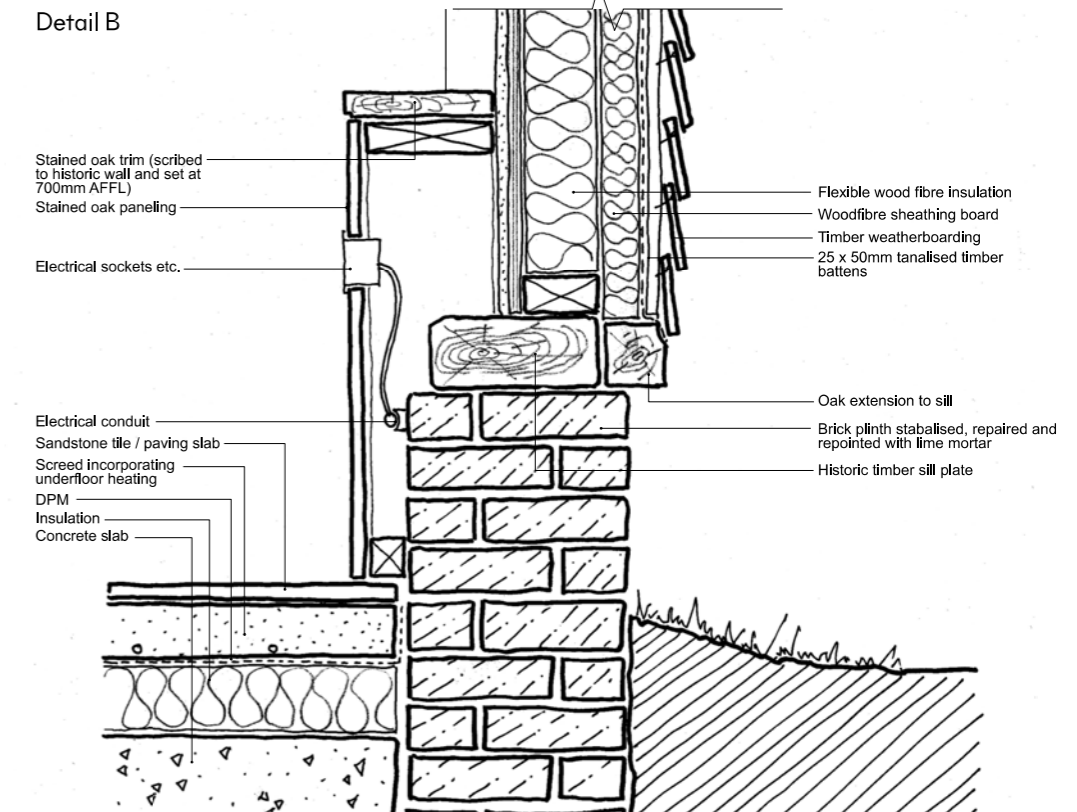
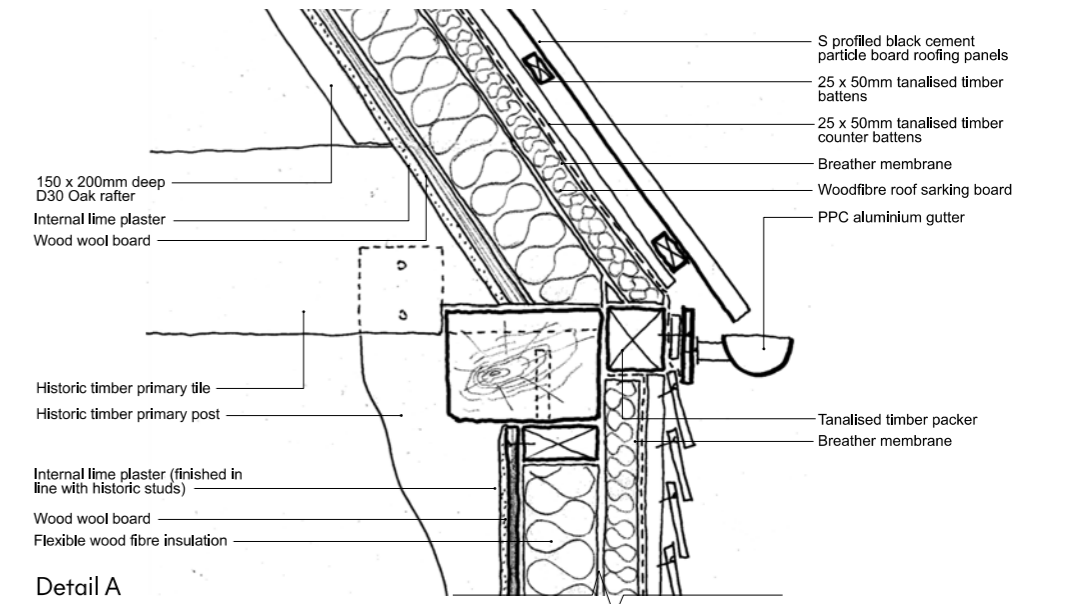
The repair and upgrading work to the listed barn takes a sympathetic approach towards dealing with the existing fabric. Renewal and repair work to the barn go hand in hand in ensuring that the barn is made safe and habitable. The non-historic interventions (the roof structure, the steel entrance door, plywood panelling and modern finishes) would be removed and, as detailed earlier, a very small number of historic frame elements will be altered to create the new openings required to allow the barn to become a liveable space.

Considerable care is to be given to the treatment of existing historic features. The historic timber frame structure of the barn will be preserved, with insulation added between existing timbers and to the outside of the frame, which will then be re-clad with timber weatherboarding. This approach allows features such as the internal wattle and daub walls to be retained and to remain a visible feature of the internal space. The wattle and daub panels will be repaired where possible with modern additions to these walls such as plywood lining boards to be removed.

The existing masonry plinth visible on the exterior of the building will have the existing cement render which partially covers it removed. The brickwork will be stabilised, repaired and repointed with lime mortar.



Wattle and daub panels to be preserved and historic timber structure to be revealed internally



Proposed section through wall showing approach to insulation and treatment of existing structure

Watering Farm: Heritage, Design & Access Statement

Before and after visualisations - west elevation



Low brick wall around front terrace not shown for clarity

Watering Farm: Heritage, Design & Access Statement

Before and after visualisations - south elevation/street view



8. Access, servicing and private amenity space

The existing access from Ipswich Rd to Watering Farm will be retained and used for the new dwelling. This access already serves as the vehicle access point for both the Tudor Grange and the semi-detached cottages to the west of the site, as well as cottages agricultural vehicles accessing both Watering Farm and Rookery Farm to the north west. The access track would be upgraded as part of these proposals in terms of its surfacing and alignment.

2no parking spaces are provided in front of the single storey attached shed which will be repurposed as the entrance porch/lobby for the new dwelling. Refuse storage is provided to the rear of the single storey shed so that it does not detract from the appearance of the front of the listed barn. This is within required drag distances.

Creating private amenity space for the new dwelling is very important, while achieving this without detracting from the appearance of the barn itself. A small linear paved terrace is created between the barn and the access track, bounded by a low brick wall, to ensure some buffer space between the barn and the access route. At the rear a private garden is created on the footprint of the existing modern lean-to shed.

Boundary treatments are important in ensuring that the farmstead typology remains clear. The existing boundary treatments around the Tudor Grange comprise low brick and flint walls enclosing a variety of planted and paved areas. The proposal continues this approach through using a low (c900mm high) brick wall, with a planter behind, to enclose the front terrace, and a taller brick wall (c.2m high) to enclose the rear garden. Fruit tree planting in the new garden is proposed to create a biodiversity benefit as well as a productive landscape reflecting the farmstead heritage of the site.



10. Assessment of impact on heritage significance

The proposals for Watering Farm barn have been developed in line with the principles recommended by Historic England and referenced earlier in this document.

The following section sets out how each principle has been addressed in the development of the proposals for the barn itself, and is followed by a summary of the assessment of the impact of the proposals on the listed barn itself and the neighbouring heritage assets.

How the design addresses the principles recommended by Historic England for the conversion of historic barns

1. Understanding the construction and condition - taking surveys to help inform of the state of the building

Extensive surveys have been undertaken to understand the extent of surviving historic fabric in the barn, its condition, and how to repair and renew it appropriately. The full survey reports are submitted alongside this document.

2. Respecting the architectural and historic interest of the building - including the balance between the practical requirements of a new use and protection of the historic character of the existing and its setting

We have developed proposals that keep the architectural and historic interest of the building clearly visible and which do not overly domesticate the building or the setting. The overall form and volume of the building will be enhanced by the replacement of non-traditional later shallow pitched roofs with traditionally pitched roof forms. The timber frame is adapted as little as possible and the key elements of interest will remain visible, such as the moulded beams to the hayloft in the southern bays of the barn and the wattle and daub panels.

The proposals adapt very little fabric and only that which is required to enable the practical conversion to residential use. The

setting of the barn will be almost unchanged as the area currently occupied by lean-to sheds to the rear will be used as the private garden.

3. Understanding the setting - good relationship with the landscape

The relationship with the landscape will be kept through this proposal which minimises the visual impact of parking and uses the existing access road. The primary (west) elevation of the barn will not be obscured by inappropriate boundary treatments and will retain a typical farmstead relationship with the wider landscape.

4. Achieve high standards of design, repair and craftsmanship - carrying out sensitive design

The proposals have carefully considered how to repair, renew and graft onto the historic fabric. The frame and wattle and daub panels will remain visible internally and insulation introduced to the outside. We welcome any condition requirements to submit full construction details for new glazing and any other elements.

5. Minimising alterations and loss to significant historic fabric - retention of as much significant historic fabric as possible

The alterations to, and loss of, significant historic fabric is minimised. Very few historic frame elements will be altered and the key aspect mentioned in the listing text, the hayloft mezzanine structure which its reused 16th century beams from the Tudor Grange, will be unaffected.

6. Retaining distinctive features

The distinctive features of the barn - the form, the primary and secondary frame, the moulded beams mentioned above, the wattle and daub panels, brick floor and the traditional cladding materials - are all retained. Distinctive features that have been lost, including the steeper pitched roof and weatherboarded cladding, will be

reinstated.

7. Considering how to introduce daylight without compromising the building's external appearance

Daylight is introduced through three primary means: through rooflights which would be low profile conservation rooflights inserted into the new roof; through using existing openings including the main opening which currently has an unattractive metal sliding door which detracts from the significance of the barn; and through introducing small windows in limited areas where historic fabric will be unaffected. No historic fabric is proposed to be altered in creating window openings or glazing into the exterior of the barn. This means that the introduction of daylighting will have minimal impact on the external appearance and will not 'domesticate' its appearance.

8. Considering the level of subdivision

The barn currently falls into three areas: the small attached shed to the north; the main barn; and the hayloft and stable area to the south. The proposals retain this clear division and limit subdivisions. The introduction of a mezzanine at the northern end of the main barn has been designed to ensure that the overall volume of the barn is still legible through not walling off the mezzanine area at either ground or first floor level.

9. Considering how services and insulation will be incorporated - building regulations (Part L)

We have carefully considered how services and insulation will be incorporated to ensure energy efficiency and to reduce carbon emissions. Currently the building is uninsulated and unheated and the aim of the project is to minimise the energy required to heat and service it after conversion. Through installing a very well-insulated new roof and through insulating all the walls, heat loss will be minimised while a breathable approach will ensure the timber frame is kept in good condition. Through creating a service

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void at low level around the perimeter of the barn and carefully considering where kitchen and bathrooms are located to minimise service penetrations, the volume and architectural character of the barn will not be diminished by the visual intrusion of services.

10. Re-using and retaining minor outbuildings which are important evidence of how a farmstead evolved over time

Through retaining the attached northern shed and reusing its existing openings to form the entrance to the barn, the wider arrangement of buildings on the site is preserved. The lean to structure to the rear, which detract from the significance of the barn, will be removed.

Impact on the setting of nearby heritage assets

Importantly, this proposal not only improves the condition and understanding of the significance of the listed barn itself, but also has a positive impact on the neighbouring listed buildings of the Tudor Grange and Dairy/Bakehouse. The current condition and form of the barn do not represent a positive contribution to understanding the evolution and relationship of the three listed buildings as farmstead cluster. Improving the appearance of the listed barn and reinstating its original roof form will be a positive benefit to the wider understanding of the site.

Summary of impact on heritage assets

In summary, the impact of the proposals on the designated heritage asset and its setting represent betterment to the significance and condition of the designated heritage asset, as well as to the neighbouring listed buildings. The proposals will restore key aspects of the listed building to their original form and expression, including the roof form and volume and the external cladding materials. The optimum viable use is secured through sensitive and appropriate conversion supported by very thorough surveys and analysis of the historic fabric of the barn and represents a positive and impactful step to improving the significance of the historic farmstead cluster on the site.