



HYBRID ECOLOGY LTD
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Preliminary Ecological Appraisal/Low Impact EclA:

Barn at Stone Cottage, Somersham, Suffolk

On behalf of:

Mr. Morris

Prepared by:

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Report version:

Version 1:

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Summary

A barn and surrounding habitats at Stone Cottage, Somersham, Suffolk (the site) was visited on 4th July 2022 in response to a proposal for a barn conversion/extension. This report provides the results of a survey and makes recommendations for further detailed surveys, mitigation and enhancement measures in the context of the proposal, referring to planning policy and best practice guidance, where appropriate.

Designated sites

- The site is within the Zone of Influence for the Stour and Orwell Estuaries SAC/SPA. The barn conversion will increase residential use of the site and will contribute to cumulative recreational pressures. To mitigate, a financial contribution will be secured in accordance with the Suffolk Coast RAMS once planning permission has been agreed.

Habitats

- It is unlikely that the proposal will require any substantial tree work or removal. As a general point, all retained trees will be protected in accordance with British Standard 5837 (2012) Trees in Relation to Design, Demolition and Construction – Recommendations.

Legally protected species (summary):

- Bats: The barn was subject to internal and external inspection in accordance with Bat Conservation Trust (2016) Guidelines. The loft void is open and draughty with significant natural light spill. The eastern end is cluttered with stored items. No evidence of bats was found, and the ridge board was covered with cobwebs. Externally, roosting opportunities are limited to small gaps under weatherboards which were inspected with a high-powered torch, no bats or evidence of bats were identified. As the external features will be retained, further bat surveys are not considered to be necessary.
- Nesting birds: The barn supports nesting blue tit, and nesting birds are reasonably likely in scrub to the south. To avoid impacts to nesting birds, construction work and vegetation clearance will either take place between October and February inclusive when nesting birds will be absent, or an ecologist will conduct a check for active nests before work starts.
- Great crested newt: A small area of unmanaged habitat will be cleared in close proximity to two ponds. A method statement is included in this report to remove any residual risk of harm to this species. Further surveys are not required.

Enhancement proposal

The wider site is currently managed for wildlife with extensive woodland, wildflower meadow and ponds. There is scope to improve this further, bat boxes on trees around the site would be particularly beneficial. These measures will contribute to Government aims under Paragraph 174(d) of the National Planning Policy Framework 2021 and Local Plan policies which encourage all development to demonstrate biodiversity net-gain.

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1.0 Introduction

Personnel

- 1.1 This report has been prepared by Gemma Holmes; Consultant Ecologist at Hybrid Ecology Ltd. Gemma is a qualified ecologist with 15 years' experience in professional survey work and is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Gemma holds licences to survey for great crested newt and bats in the UK (Licence numbers 2015-19096-CLS-CLS and 2016-27305-CLS-CLS respectively).

Brief

- 1.2 Mr. Morris instructed Hybrid Ecology to produce a Preliminary Ecological Appraisal/Low Impact EclA for a barn at Stone Cottage, Somersham, Suffolk (central grid reference: TM08646 48218). The site plan is provided in Appendix 1. The project involves a barn conversion/extension.

Aims

- 1.3 This report has been written in accordance with CIEEM Ecological Report Writing Guidelines and aims to advise the client/developer and relevant members of the project team as to the key ecological constraints and opportunities associated with this project and any necessary mitigation requirements to ensure legal obligations in respect of protected species, designated sites and habitats are met.

Limitations

- 1.4 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Wildlife is transient and mobile, and results of a survey can reasonably vary from one day to the next or across the seasons.
- 1.5 The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. However, it should not be taken as providing a full and definitive survey of any protected species/group.
- 1.6 In accordance with CIEEM Report Writing Guidelines (December 2017), this report is valid for 18 months, after which habitats are reasonably expected to have changed to warrant an updated survey. Beyond 18 months, this report should not be accepted in support of a planning application.

Figure 1. Location plan

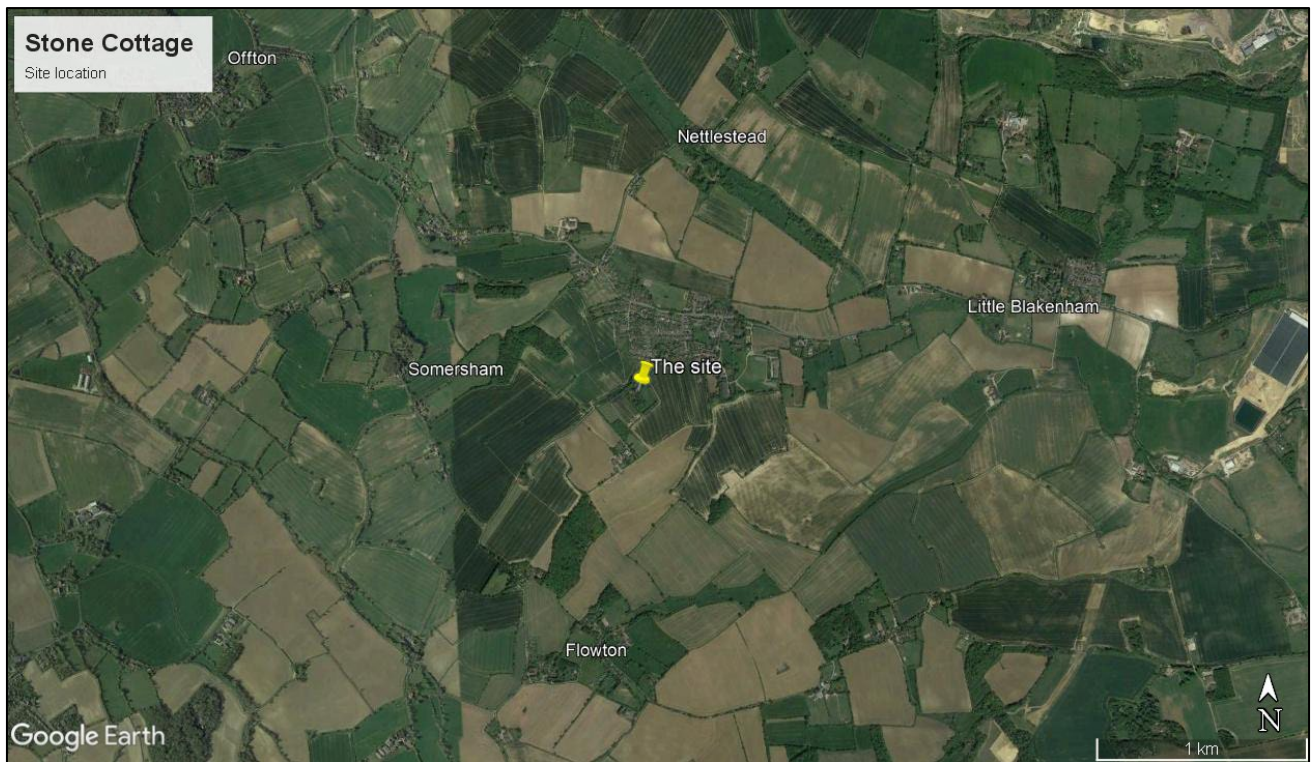
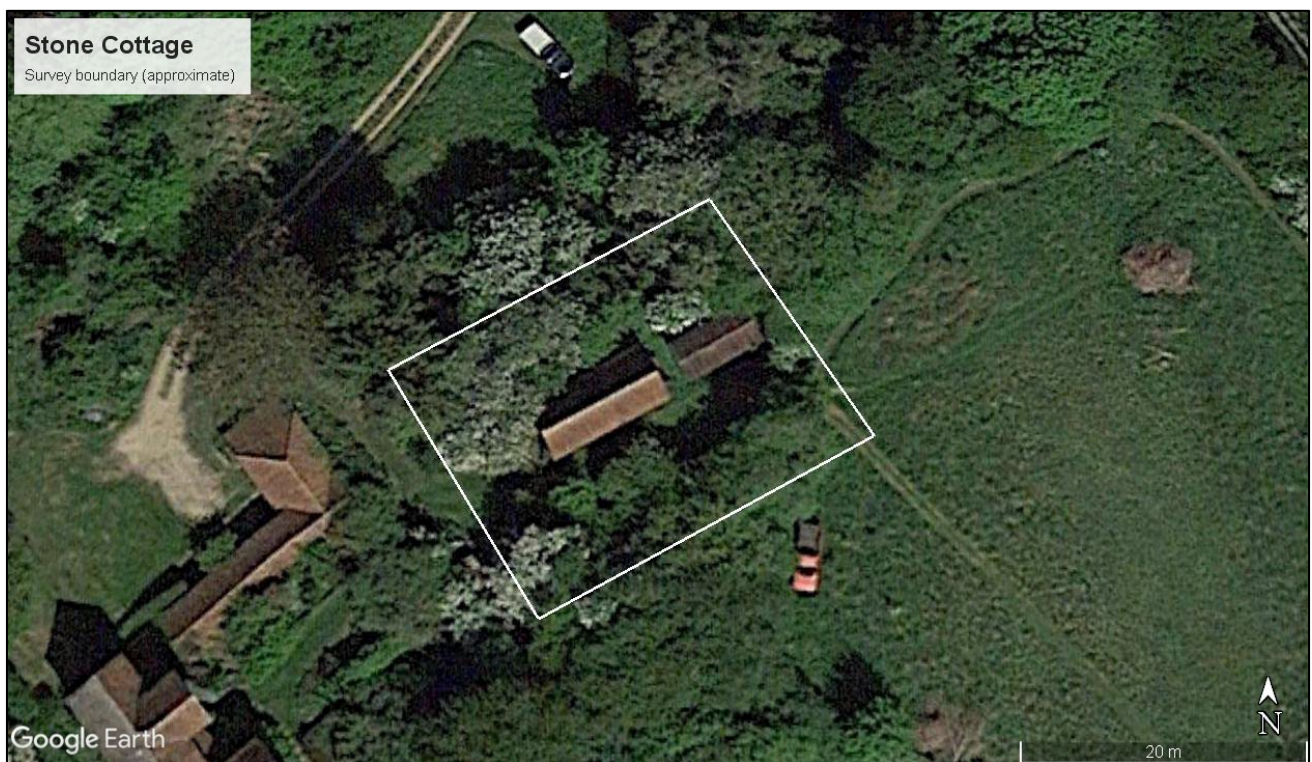


Figure 2. Survey boundary



2.0 Planning Policy and Legislation

National Planning Policy Framework (2021): Conserving and Enhancing the Natural Environment

Please note the below policies have been taken directly from the National Planning Policy Framework, which can be found here: [National Planning Policy Framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk/national-planning-policy-framework)

Paragraph 174

2.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;

Paragraph 179

2.2 To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Paragraph 180

2.3 When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Paragraph 181

2.4 The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

Paragraph 182

2.5 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Legislation: Protection of Designated Sites, Habitats and Species

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any wildlife law. UK wildlife legislation can be found here: [Legislation.gov.uk](https://www.legislation.gov.uk)

Designated sites

RAMSAR

- 2.6 Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

Special Areas of Conservation (SAC)

- 2.7 Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at an international level.

Special Protection Areas (SPA)

- 2.8 Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

National Nature Reserves (NNR)

- 2.9 National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

Sites of Special Scientific Interest (SSSI)

- 2.10 Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981, as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria.

Local Nature Reserves (LNR)

- 2.11 Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational objectives – no need for SSSI status. Some reserves are managed by a non-statutory body.

Local Wildlife Site / Wildlife Sites

- 2.12 Local Wildlife Sites (LoWS) are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although LoWSs have no statutory protection they are a material consideration in the planning process.

Regionally Important Geological / Geomorphological Site (RIGS)

- 2.13 Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites – they are not a second tier but sites of regional or local importance in their own right.

Legally protected species

- 2.14 The Conservation of Habitats and Species Regulations (2019, EU Exit) affords protection to various species/species groups including bats (all species), great crested newt, otter and dormouse.
- 2.15 The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. Species protection is provided under Schedules 1, 5, 6 and 8 to species including bat, great crested newt, water vole, otter and nesting birds. Badgers are protected separately under the Protection of Badgers Act (1992).

Species and Habitats of Principal Importance in England (or Priority habitats/species)

- 2.16 The Natural Environment and Rural Communities Act (2006) places a duty on Local Planning Authorities to conserve and enhance certain habitats and species. The species that have been designated to be of “principal importance for the purpose of conserving biodiversity” are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world’s total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Similarly, the list of habitats of principal importance in England also derive from the UK Biodiversity Action Plan.

3.0 Methodology: Desktop Study

Mapping exercise

- 3.1 Aerial imagery (Google Earth Pro, 2021) was used to examine the landscape context of the site in relation to significant ecological assets such as woodland, established hedgerows, grassland and any naturalised features that would allow wildlife use and dispersal.
- 3.2 Multi-Agency Geographical Information for the Countryside (MAGIC) mapping was used to:
- Determine whether the site is within the scope of the Suffolk Coast Recreational Avoidance and Mitigation Strategy (Suffolk County Council). The “Suffolk Coast RAMS” or The Strategy aims to deliver the mitigation necessary to avoid significant adverse effects from ‘in-combination’ impacts of residential development that is anticipated; thus protecting the Habitats (European) sites on the coast from adverse effect on site integrity. All new residential developments within the evidenced Zone of Influence where there is a net increase in dwelling numbers are included in the RAMS.
 - Determine the proximity to international, national and locally designated sites and whether the site lies within the Zone of Influence/Impact Risk Zone, as appropriate.
 - Identify any areas of land mapped by Natural England as Priority Habitat within 250 metres of the site.
 - Identify any European Protected Species (EPS) mitigation licenses granted by Natural England for great crested newt or bats within a 5km radius of the site that could be relevant to this development.

Biological Records Search

- 3.3 A biological records search for all protected and notable species within a 1km radius of the site was ordered from Suffolk Biological Information Service (SBIS) on 14th July 2022.

4.0 Methodology: Habitats and Species

Phase 1 Habitat Survey

4.1 An ecological walkover survey was carried out on 4th July 2022 by ecologist Gemma Holmes (BSc Hons ACIEEM). The survey included all land shown in Figure 2 and two ponds beyond the boundary. The survey was undertaken broadly in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010).

Protected/priority species scoping

4.2 The survey also included an assessment of the site’s potential to support any legally protected species; or Species and Habitats of Principal Importance (Priority Species), as identified by Section 41 of the Natural Environment and Rural Communities Act (2006). Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (BCT 2016) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000).

4.3 In accordance with BCT, 2016, the barn and shed to the east were subject to Preliminary Roost Assessment for bats. This included a ground-level external search to identify potential roost features using Nature Hawke binoculars and an internal inspection including the loft void. External surfaces were also inspected for signs of bats such as droppings. The barn and outbuilding were assigned a “bat roost suitability” based on features/evidence found, in accordance with Figure 3.

Figure 3. Guidelines for assessing potential suitability of development sites for bats (BCT, 2016)

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

The Mitigation Hierarchy

4.4 All development is expected to meet the highest planning standards and follow the Mitigation Hierarchy of avoid, mitigate, compensate and enhance to ensure that significant natural environment impacts are avoided.

- Avoid - Avoiding any loss or damage of wildlife sites or to protected / Priority species – development must not damage or destroy important national and Local Wildlife Sites.
- Mitigate - Impacts considered unavoidable should be mitigated at the site where the impact occurs, if at all possible.
- Compensate - Any remaining significant biodiversity loss should be compensated for, as close to the area of loss as possible.
- Enhance: Improve degraded ecosystems/return an area to original ecosystem including creating new habitat - habitat creation should be a standard feature of all new development, wherever it is.

Evaluation criteria

4.5 Ecological features (designated sites, habitats, and species) were evaluated where possible in relation to a geographical context (i.e. International, National, Regional, Metropolitan, County, District, Borough, Local and Site), in accordance with CIEEM Ecological Impact Assessment Guidelines (2016). Criteria include designations, quality of habitat in relation to the site context, ability to support notable assemblages of species, contribution to habitat connectivity, dispersal opportunities or providing intrinsic ecological value.

5.0 Results: Desktop Study

Landscape context

5.1 The site is situated in a rural position on the south-western edge of Somersham in Suffolk. The ownership boundary includes a variety of habitats such as woodland, wildflower grassland, ponds and allotments. Beyond this the landscape is mostly arable, with fragmented woodlands and good hedgerow connections between fields.

Designated sites and Priority Habitats

5.2 Mapping is provided in Appendix 2. The site is approximately 14 km from the Stour and Orwell Estuaries (SPA/Ramsar) which holds international significance for:

- Black-tailed godwit
- Knot
- Dunlin
- Redshank
- Grey plover
- Dark-bellied brent goose
- Northern pintail
- Pied avocet

5.3 The site is within the Zone of Influence for the Stour and Orwell Estuaries and will reasonably contribute to in-combination recreational pressures. The site sits within Zone A (please refer to the Suffolk Coast Recreational Disturbance Avoidance and Mitigation Strategy SPD, August 2020) and therefore requires a payment of £121.89 which would be secured via legal agreement or unilateral undertaking. Monies collected (from this and surrounding developments) will be spent across the tariff area on projects such as improved signage, path surfacing, dog waste bins and education at the coastal sites. This will ultimately make them more resilient to increased visitor numbers.

5.4 Somersham Park ancient woodland site is approximately 0.6km to the south of the site but will not be affected by this project in any way.

Priority Habitats

5.5 The area to the south of the site is mapped as “lowland deciduous woodland”. This is the area the barn will be extended into. On inspection, the area is dense scrub, including hawthorn *Crataegus monogyna*, hazel *Corylus avellana* and apple *Malus sp.* trees with dense ivy *Hedera sp.* This does not qualify as Priority Habitat and its removal could be easily compensated for.

EPS licenses

- 5.6 The closest EPS licence is approximately 2.3km to the south-east of the site (reference application 2016-24231-EPS-MIT) and concerned great crested newt. Given the distance and the nature of the project, this is not relevant and is considered no further.

Sites evaluation: The development will cumulatively contribute to recreational pressures at the Suffolk Coast, a payment will be required in compliance with the Suffolk Coast RAMS. No further mitigation is required in relation to designated sites or Priority Habitats.

6.0 Results: Phase 1 Habitat Survey

Photographs from the site visit are provided in Figure 4. For full details on legally protected species, please refer to Section 7. Latin names appear in the text once.

- 6.1 The site comprises a timber-framed barn aligned north-east/south-west that was moved to site and rebuilt approximately 50 years ago. The barn is understood to be around 200 years old. Walls are weatherboarded and the roof is pitched and covered with traditional tiles. The main barn is entered from a door to the south and there is a room used as a workshop with large door to the west. Internally the main barn opens into a ground floor room with hay loft above, the workshop is separated to the west by a partition wall. In the loft, there are items stored to the east and a small glass window at the eastern end. The ceiling to ridge height is approximately 2 metres. The loft is generally light and draughty with light entering from the eaves and windows. It is understood that blue tit *Cyanistes caeruleus* nest in a box to the east of the barn adjacent to the window.
- 6.2 Surrounding the barn is a mown (amenity grassland) walkway. To the east of the barn is a small single-storey shed with tin roof, used for storage.
- 6.3 To the south of the barn beyond the amenity grassland is an area of scrub comprising hawthorn *Crataegus monogyna*, apple *Malus sp.* and hazel *Corylus avellana* with dense ivy *Hedera sp.* Part of this area will be removed to accommodate the barn.
- 6.4 To the north there are several holly *Ilex sp.* trees with elder *Sambucas nigra* and hawthorn scrub. Beyond this the land slopes into a former gravel pit. We understand this area will be unaffected.
- 6.5 To the south-east, beyond the shed is a wildflower grassland which extends to approximately 0.3 hectares. The grassland has been traditionally managed as a hay meadow, but the management has recently lapsed. Despite this there is an impressive variety of species, including wild marjoram *Origanum vulgare*, chickory *Cichorium intybus*, common knapweed *Centaurea nigra*, field scabious *Knautia arvensis* and lady's bedstraw *Galium Verum*.

Habitats evaluation: The habitats to be affected (barn and scrub) are common and widespread, important at Site Level only. Surrounding habitats including the wildflower grassland are important at Local Level but will not be affected by the small-scale development.

Figure 4. Photographs



a) Eastern/southern aspect of the barn



b) Southern/western aspect of the barn



c) Ground floor interior



d) Barn loft void



e) Shed to the east



f) Wildflower grassland (retained)

7.0 Results: Protected/Priority Species Scoping

This section includes the results of the data search, habitat requirements for each species/species group and an assessment in the context of the work proposed.

Bats

Data search results:

- 7.1 SBIS identified records for common pipistrelle and brown long-eared bats within 1km of the site.

Habitat requirements:

- 7.2 Bats require safe, sheltered internal spaces in which to roost. In buildings, roosts are typically found in loft spaces, under fascias, weatherboards, lead flashing, under roof/ridge or hanging tiles. In trees, bats are typically found in woodpecker holes, flaking bark, wounds and hazard beams. The largest roosts are found close to foraging resources such as woodland and water.

Assessment:

- 7.3 The barn is generally in good condition but has several ingress opportunities including under the eaves. All internal crevices were inspected with a high-powered torch and there was no observable evidence of roosting bats – many were covered with cobwebs. The loft void, whilst large is cluttered with stored items to the east reducing available flying room (e.g. for brown long-eared bats). No droppings were found underneath the ridge board or on stored items, no staining was seen on timbers and no insect remains were found. Externally the tiles are in good condition, no missing tiles were noted. The ridge tiles are also well-sealed.
- 7.4 The only opportunity for bats would be underneath slightly warped weatherboards at gable ends, but they were inspected with a torch and no evidence was seen, nor were any droppings found beneath the features. The weatherboards to the south also appear well-sealed.
- 7.5 Overall, the barn is considered to have low bat roost suitability – provided the roof tiles and weatherboards are retained in situ there is unlikely to be any impact on bats and no reason to conduct further surveys.
- 7.6 It is recommended that where possible, work is timed to autumn (September/October) when bats are least vulnerable (and nesting birds are absent).
- 7.7 Importantly, in the event that bats were encountered, work will cease until ecological advice has been sought.
- 7.8 The shed to the east of the barn has no available void or crevice roosting opportunities and therefore negligible roost suitability – requiring no further survey.
- 7.9 There are no trees on or adjacent to the site with potential roost features.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None.
Avoidance	All roof tiles and weatherboards on the first floor are to be retained.
Mitigation	In the unlikely event that bats are encountered during construction work will cease until ecological advice is sought and implemented.
Compensation	None.
Enhancement	There is scope to install bat boxes on a retained tree on the site.

Great crested newt

Data search results

7.10 No great crested newt records were returned from SBIS.

Habitat requirements:

7.11 Great crested newt (GCN) requires both terrestrial and aquatic habitats. They return to aquatic habitat to breed March-June, using small to medium ponds with no fish and suitable marginal vegetation including watercress and float grass (Froglife 2001).

7.12 Terrestrial habitat includes refuges and foraging and dispersal opportunities as well as hibernation sites such as rubble piles or mammal burrows. It is rare to find GCN over 250 metres from a breeding pond (Cresswell & Whitworth 2004).

Assessment:

7.13 No ponds or waterbodies would be lost to the proposal.

7.14 There are two ponds approximately 40 metres to the south-east of the barn at the closest point. Both ponds were dry at the time of the survey. They are heavily shaded by dense foliage. There are no further ponds within 250 metres.

7.15 The habitat to be affected includes the barn and managed walkways around it, and a small area of scrub to the south-east that will be removed to accommodate the extension. The small area of scrub equates to 50m² (0.005 hectares). This area does not contain any potential hibernation habitat i.e. logs/buried rubble, mammal burrows. Other than scrub, all habitats are maintained and would not be suitable for terrestrial colonisation.

7.16 Taking the site in context, terrestrial GCN is more likely to use the woodland and grassland off-site, which will be retained and unaffected.

7.17 The Natural England rapid risk assessment tool shown overleaf indicates that for the loss of 0.005 hectares of potential terrestrial habitat within 100 metres of a potential breeding pond, the risk of committing an offence during work would be “highly unlikely”.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.05
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.05
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

7.18 Using the information and tools above, it is possible to conclude that the small area of clearance required is unlikely to result in killing, injuring, disturbing GCN or reducing their available area of habitat. Consequently, it is considered that the risk of potential impact of the proposals upon the conservation status of GCN is negligible.

7.19 To reduce the risk of harm, it is recommended that where possible, work takes place either between March and June i.e. when GCNs are in ponds (assuming absence of nesting birds), or during winter when they will be hibernating. Clearance will be achieved using hand tools and care will be exercised when moving any stumps to ensure that great crested newt is not sheltering beneath. Once the site is cleared, it will be maintained as such until work commences to discourage future colonisation.

7.20 The risk of potential impact upon great crested newt is negligible. No further surveys are considered necessary or appropriate in respect of this species at this site.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	<ul style="list-style-type: none"> • Carry out clearance using hand tools • Check any stumps for great crested newt • Carry out work either when GCNs are breeding (March-June) or during winter. • Maintain site in cleared condition until work starts
Mitigation	In the unlikely event that great crested newt is encountered, work will cease until ecological advice has been sought.
Compensation	None
Enhancement	Both ponds could be improved for GCNs by improving light, particularly along the southern edge.

Dormouse

Data search results:

7.21 SBIS returned no records for dormouse.

Habitat requirements:

7.22 The hazel dormouse requires wooded habitats, usually semi-natural woodland containing hazel coppice and oak, and a rich understorey cover through which to disperse safely between trees (English Nature 2006).

Assessment:

7.23 The habitats on the site comprise a barn and small area of scrub to the south. There is no ancient woodland or species-rich hedgerows to be affected. There is not a reasonable likelihood of presence.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	None

Otter and water vole

Data search results:

7.24 SBIS does not hold records for this species within 1km.

Habitat requirements:

7.25 Both species require flowing water, deep enough to support foraging behaviour and with connectivity into the wider landscape.

Assessment:

7.26 There is no suitable aquatic habitat on or adjacent to the site.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	None

Reptiles

Data search results

7.27 SBIS does not hold any reptile records within 1km.

Habitat requirements:

7.28 Reptiles (common lizard, slow worm, grass snake and adder) require mosaic habitats with features in which to bask, forage and shelter. These habitats need to have onward connectivity for dispersal. Suitable habitats include grassland with scrub edges or small woodland coppices (Edgar et al. 2010).

Assessment:

7.29 The site comprises a barn, amenity grassland and small area of scrub to the south. None of these habitats are particularly conducive to reptiles, any population is reasonably likely to be centred around the wildflower grassland to the south-east which would be completely unaffected by this project.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	Habitats on the site will be maintained to discourage future colonisation ahead of development.
Mitigation	In the unlikely event that reptiles are encountered, the individual will be carefully caught and relocated off-site to grassland.
Compensation	None
Enhancement	None

Birds

Data search results

7.30 SBIS returned records for several notable species including barn owl, swift and house sparrow within 1km.

Habitat requirements:

7.31 Nesting birds use buildings, scrub and trees between March and August inclusive (note some species including pigeon will nest all year round).

Assessment:

7.32 Blue tit nest inside the barn in a box on the eastern gable. There may be other birds including wren that use the barn for nesting. The barn is unsuitable for swallow and no evidence of barn owl was seen. The area of scrub is likely to support generalist nesting birds particularly due to ivy presence.

7.33 Whilst removal of a small number of garden trees/garden vegetation may be required to implement the proposal, these removals would be of negligible consequence in respect of potential nesting habitat and would be suitably replaced by new planting undertaken as part of the proposal.

7.34 The bird breeding season is from March to September. Ideally, work would take place outside this window. If works to buildings/vegetation is proposed during the season, a check will be made for nests prior to works commencing. If nests are present, they will be left intact and undisturbed until the young have fledged.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	Construction and vegetation clearance will take place between October and February inclusive unless an ecologist can confidently rule out active nests.
Mitigation	In the unlikely event that despite the above, "active" nests e.g. supporting eggs, chicks, young are encountered, work in that area will cease until the young have fledged.
Compensation	The blue tit nest box will be relocated.
Enhancement	Where possible, additional bird boxes will be provided.

Badger

Data search results

7.35 Confidential. Available only on request.

Habitat requirements:

7.36 Badger is a widespread, common mammal and is legally protected due to persecution rather than rarity or conservation significance. European badger requires habitats in which to build their setts and in which to forage. Badgers preferentially choose sloping banks (road verges, railway embankments, woodlands) with easy-dig substrate for sett building where foraging habitat is available.

Assessment:

7.37 No badger setts, or any other signs alluding to use of the site by badger were identified on the site. As mammals might be transient in the area, the mitigation measures in the table below are recommended during construction.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	None
Mitigation	<ul style="list-style-type: none">• Any trenches or deep pits that are to be left open overnight should be provided with a means of escape should a badger enter. This could simply be in the form of a roughened plank of wood in the trench as a ramp to the surface.• Any trenches/pits should be inspected each morning before work commences to ensure no badgers have become trapped overnight. Should a badger be found then formal ecological advice must be sought before work commences for the day.• The storage of topsoil or other 'soft' building materials within the site should be given careful consideration. Badgers will readily adopt such mounds as setts, which would then be afforded the same protection as established setts. So as to avoid the adoption of any mounds, they should be subject to daily inspections before work commences.• During the work, the storage of any chemicals should be contained in such a way that they cannot be accessed or knocked over by any roaming badgers.• Open pipework with a diameter of more than 120mm should be properly covered at the end of the work day to prevent badgers entering and becoming trapped. Again, should a badger trap itself then formal ecological advice must be sought before work commences for the day.
Compensation	None
Enhancement	None

Legally protected plants/invertebrates

Assessment:

- 7.38 The site contains common, widespread habitats that are typical of similar environments locally. Such habitats are unlikely to support notable plants or insects. The wildflower grassland to the south-east is diverse and botanically interesting – but will be unaffected.

Requirements for further survey, avoidance, mitigation, compensation and enhancement

Further survey requirement	None
Avoidance	None
Mitigation	None
Compensation	None
Enhancement	None

8.0 Ecological Constraints and Opportunities

Constraints:

- 8.1 The site is within the ZOI for the Stour and Orwell Estuaries SPA/SAC and development will contribute to recreational pressures. To mitigate, a financial contribution will be paid on receipt of planning permission, in accordance with the Suffolk Coast RAMS.
- 8.2 The following recommendations apply to the project in relation to habitats and species:
- Construction work and removal of scrub will take place between October and February inclusive to avoid impacting nesting birds. If this is not possible, an ecologist will be engaged to carry out a check for active nests immediately before construction starts. Compensatory nest provision will be factored into the development.
 - Construction work will be carried out in a careful manner, retaining warped weatherboards. In the unlikely event that roosting bats are encountered during construction, work will cease until ecological advice has been sought and implemented.
 - The scrub area to the south will be removed with consideration to GCNs, by hand and in a sensitive manner.
 - In the unlikely event that any excavation or work is required to vegetation, work will comply with British Standard 5837 (2012) Trees in Relation to Design, Demolition and Construction – Recommendations and arboricultural advice (where required).

Opportunities

- 8.3 Biodiversity net-gain is now encouraged under Paragraph 174(d) of the National Planning Policy Framework (2021). The following recommendations are reasonable and proportionate and would contribute to net-gain, they could be secured via a Biodiversity Enhancement Strategy or similar:
- Bird boxes: It is recommended that two open-fronted bird boxes and two 32mm bird boxes are installed around the site (this could be on the barn or retained trees). External boxes will be woodcrete or woodstone, face north or east and be installed above 2 metres. Integrated bird boxes could also be included, where design allows.
 - Bat boxes: It is recommended that three bat boxes are installed on a retained tree close to the wildflower grassland and pond. Boxes will be installed above 3metres and face south, south-east and south-west. *See Appendix 3 for habitat box recommendations.*
 - Pond enhancements: The ponds could be improved through selective removal of vegetation along the southern edge to invite more light in and promote aquatic plants.
 - Planting: Where possible, the development will include native, wildlife friendly planting. Recommended species include cherry, apple, pear, guelder rose, hawthorn, hazel.

9.0 Conclusions

- 9.1 Hybrid Ecology was instructed to carry out an ecological assessment in relation to a project involving conversion/extension of a barn. This will also involve the removal of a small area of scrub.
- 9.2 A mapping exercise was undertaken to determine constraints relating to designated sites and Priority Habitats. A survey was carried out in July 2022 to map habitats and identify any potential for/evidence of legally protected species. The survey also identified opportunities for ecological enhancement.
- 9.3 A financial contribution will be made in compliance with the Suffolk Coast RAMS once planning permission has been agreed.
- 9.4 The site contains limited habitats that are common and widespread, with limited potential for legally protected species. Further surveys are not required. Impact avoidance measures made in this report relating to bats, great crested newt, nesting birds and badger will be complied with.
- 9.5 Provided the recommended measures contained in this report are implemented, it is considered that the development can proceed with minimal impact to local biodiversity.

Enhancement opportunities

- 9.6 The development provides an opportunity for biodiversity enhancements, including pond improvements, bird boxes and bat boxes. These measures will contribute to biodiversity net-gain in accordance with Paragraph 174(d) of the NPPF (2021).

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Conservation of Habitats and Species Regulations, 2017. Available at:
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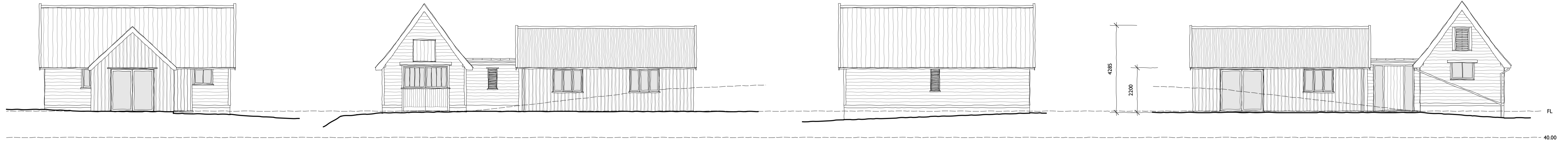
Multi-Agency Geographical Information for the Countryside (2022). Available at: [Magic Map Application \(defra.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/108443/magic-map-application.pdf)

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<http://www.legislation.gov.uk/ukpga/2006/16/contents>

National Planning Policy Framework, 2021. Available at: [16. Conserving and enhancing the historic environment - National Planning Policy Framework - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/98170/nppf-2021.pdf)

Suffolk Coast RAMS, 2020 Available here: [Suffolk Coast Recreational Avoidance and Mitigation Strategy \(RAMS\) | Ipswich Borough Council](https://www.suffolk.gov.uk/sites/default/files/2020-09/Suffolk%20Coast%20Recreational%20Avoidance%20and%20Mitigation%20Strategy%20(RAMS)%20Ipswich%20Borough%20Council.pdf)

Appendix 1. Site plan



South Elevation

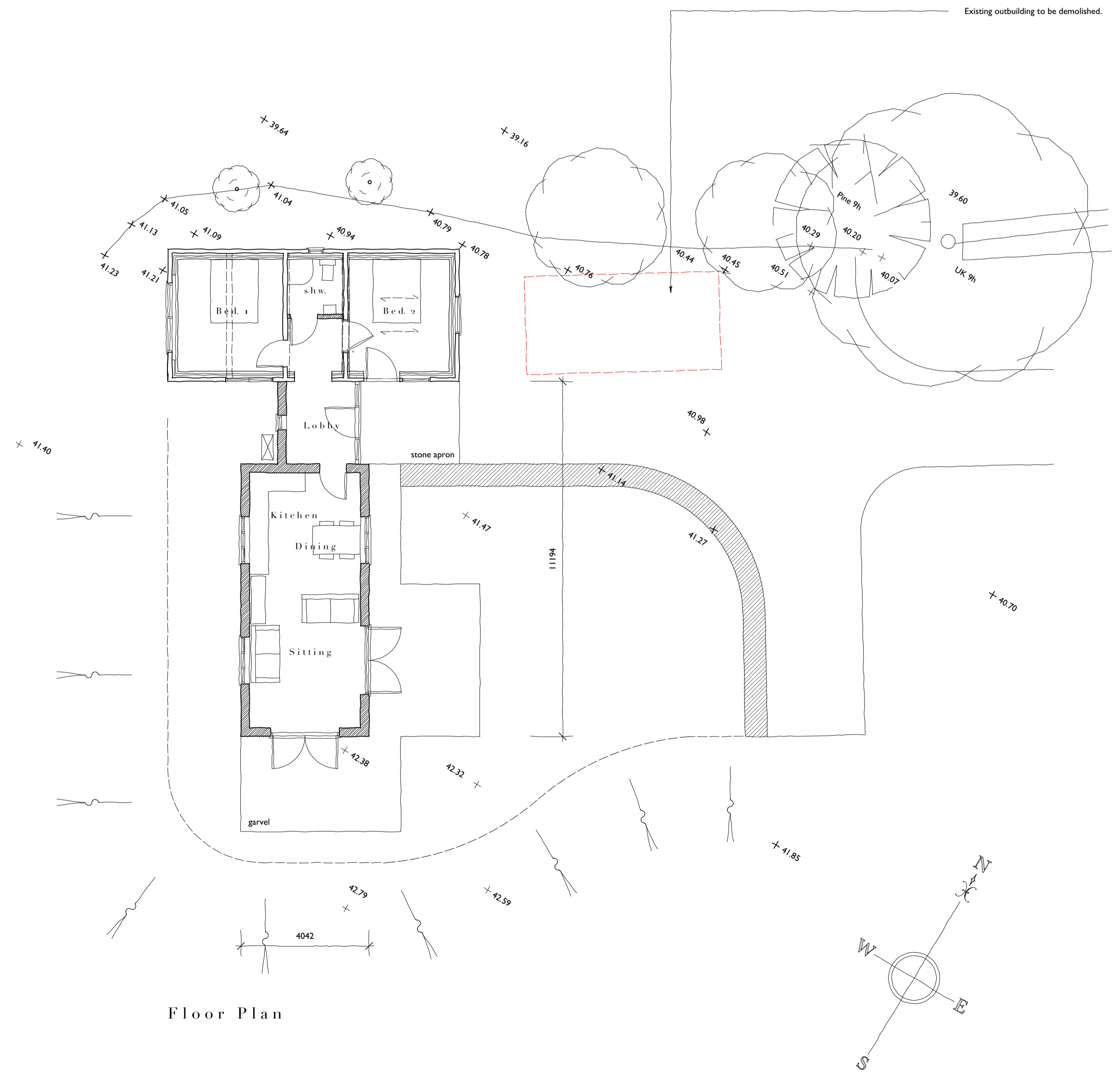
West Elevation

North Elevation

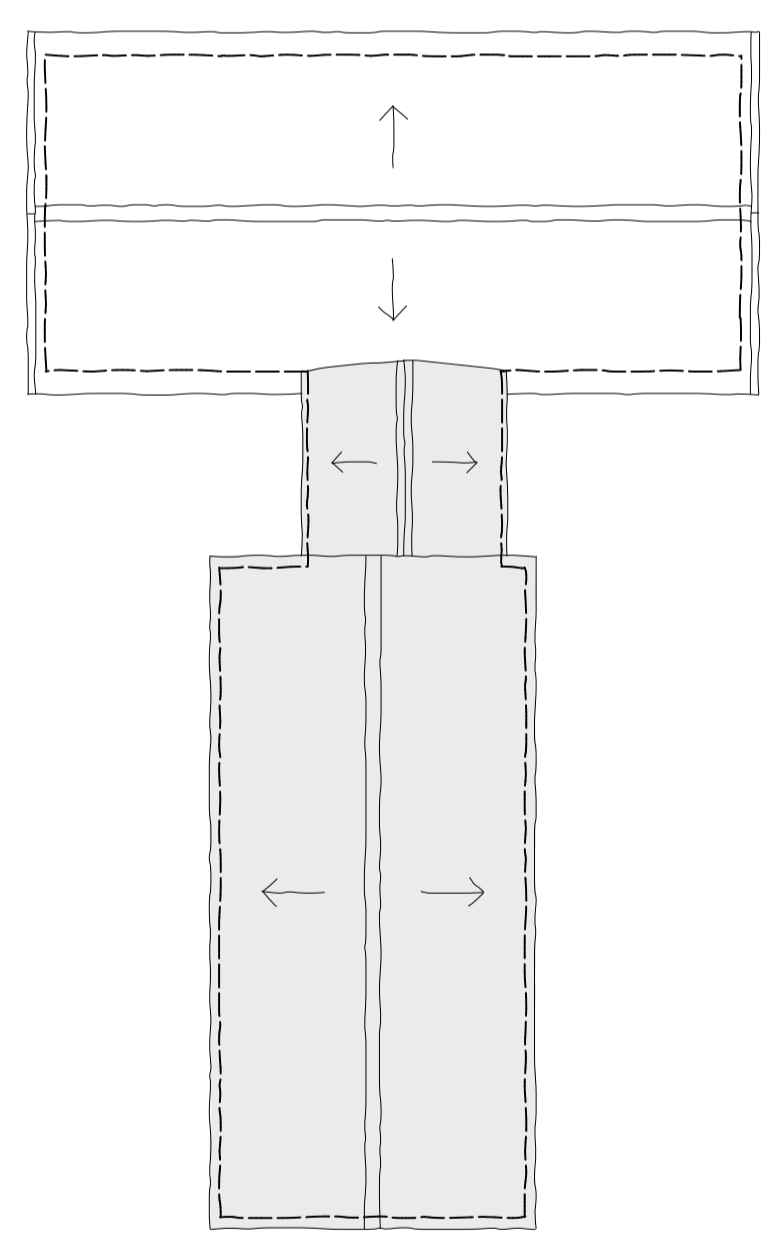
East Elevation

Proposed Materials

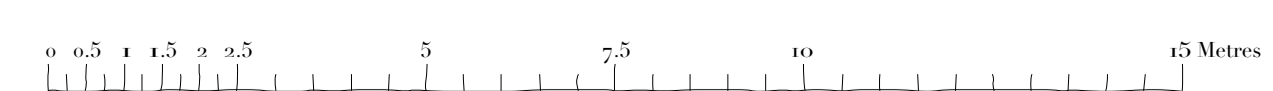
- Walls - Grey stained board on board cladding to extension with red brick plinth and black weatherboarding to existing building retained.
 - Roof - Corrugated zinc metal with capped barge boards. Standing seam zinc to link Retain pantiles to existing.
 - Joinery - Painted timber to existing. Dark grey steel to extension.
 - Rainwater goods - Half round zinc
- Existing structure to be removed
 - Proposed structure



Floor Plan



Roof Plan



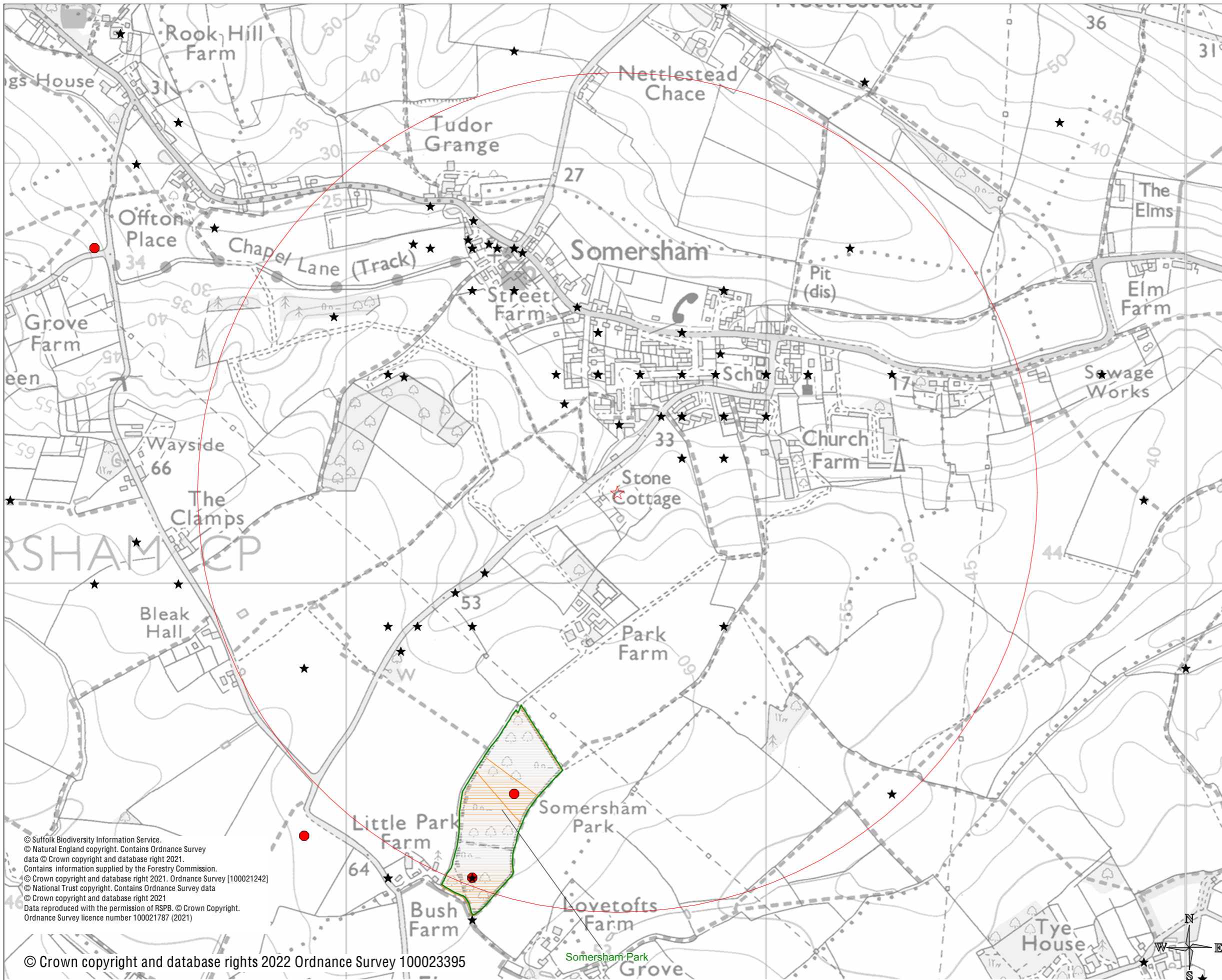
**ROGER BALMER
DESIGN**

FOUNTAIN HOUSE STUDIO THE STREET EAST BERGHOLT COLCHESTER CO7 6TB
Telephone: 01206 299477 Email: enquiries@rogerbalmerdesign.co.uk

Client	Project	Drawing
Mr P Morris	Stone Cottage Flowton Road Somersham	Plans and Elevations as Proposed
Scale	Date	Del.
1:100 at A1	April 2022	BOC
		Drawing no. Rev.
		3721 - 04

Contractors must verify all dimensions and information on site prior to commencement of work. Do not scale from drawing.
© Roger A Balmer Ltd

Appendix 2. SBIS map

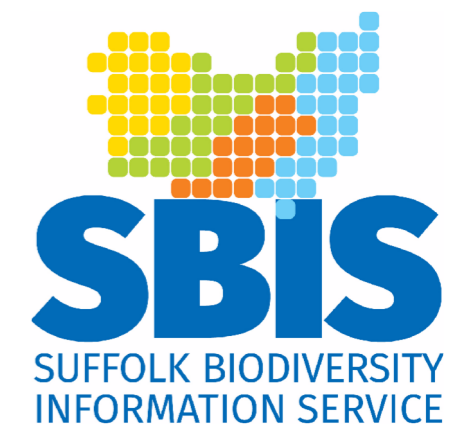


- Data Enquiry**
- ☆ Search Point
 - Search Area
- Protected, Locally Scarce and Rare Species**
- ★ Record Locations (for grids of 6 fig. or greater)
- Schedule 9 Species**
- Record Locations (for grids of 6 fig. or greater)
- Ancient/Veteran/Notable Trees**
- 🌳
- Roadside Nature Reserve**
-
- County Wildlife Sites**
-
- County GeoSites**
-
- SSSI**
- ▨
- LNR**
- ▨
- SPA**
- ▨
- SAC**
-
- RAMSAR**
-
- NNR**
- ▨
- SWT Reserve**
- ▨
- Ancient Woodland Inventory**
- ▨
- Other Public or Conservation Ownership/Management**
- ▨ Forestry Commission, National Trust (public access), RSPB (public access)
- National Park**
- The Broads
- AONB**
- Suffolk Coast and Heaths or Dedham Vale

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Scale report: 1:9,000



Hybrid Ecology (Stone Cottage, Somersham TM08646 48218) 1km Data Enquiry

Date: 15/07/2022 | Drawn by: Andy Mercer

Appendix 3. Habitat boxes/features



Woodcrete open-fronted bird box - [Barcelona Open Nest Box - Brown \(wildcare.co.uk\)](http://wildcare.co.uk)



32mm bird box

SINGLE CREVICE BAT BOX



£36

Individually Handmade - Specifications are in CM and approximate.
 External: 43 high x 21.5 wide x 6.8 deep.
 Internal: 41 x 16.5 x 1.8 crevices @ 1.
 Made with small groups of crevice dwelling bat species in mind, such as pipistrelles. Approx. 4.75kg

TWO CREVICE BAT BOX



£48

Individually Handmade - Specifications are in CM and approximate.
 External: 43 high x 21.5 wide x 6.8 deep.
 Internal: 41 x 16.5 x 1.8 crevices @ 2.
 Made with small groups of crevice dwelling bat species in mind, such as pipistrelles. Approx. 6.75kg

Bat boxes for trees from Greenwoods Eco Habitats