



Protected species and habitats survey.

Site:

Hillmora,
Bells Lane,
Hinderclay,
Suffolk.
IP22 1HW

Final report: 28th June 2022.

Author: John Parden

Natural England Licence: Licence No's :

2015-14697-CLS-CLS (Bats)
2021-53785-CLS-CLS (GCN)

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1.0 Executive summary

John Parden (Licensed ecologist) of JP ecology was commissioned by Roberts Molloy (Instructing architects) to undertake a protected species and habitats survey at Hillmora, Hinderclay.

The scoping survey and bat activity survey determined that protected species were not a consideration when determining the planning application.

The survey is required for inclusion with a planning application for the demolition of existing outbuildings and construction of a new property within the grounds and gardens of an occupied domestic residence.

The site was surveyed by John Parden of JP ecology on 22nd October 2021, 3rd Feb 2022 and 31st May 2022.

The scoping survey determined the site was entirely built environment and indigenous species hedgerow with trees along the west and south boundaries. The habitats within the site include concrete driveway, outbuildings, garages and workshop, managed gardens. The existing occupied domestic residence is to be retained and unaltered and consequently was not subject to survey.

The natural or semi-natural habitats on the site were restricted to the boundary hedgerows. The OS map shows a pond on the site. This has become infilled and is no longer present on site.

The buildings were assessed as having negligible or low bat roosting suitability and consequently a single bat activity survey was required in accordance with guidelines, to give confidence to the scoping survey results.

It was concluded that no bats, were roosting on the site.

Mitigation and enhancement.

Further surveys.

- No further surveys are required to support the findings of the scoping survey

General mitigation – all species.

- The contact details of a suitably licenced ecologist should be made available to the development contractors.
- Advice must be sought from an ecologist if any protected species are inadvertently disturbed.

Obligatory mitigation.

- An Ecological Clerk or Works (ECoW) should be appointed prior to works commencing on site.
- Nesting birds –
 - Nesting birds should not be disturbed during the nesting season typically 1st March to 31st August (species dependant).
 - Should it be necessary to strip the site or clear hedgerows / trees during the nesting season, specifically demolition of the barn, the site should be searched by the ECoW and any nests protected until the young have fledged.
- Bats
 - All external lighting should be sensitive to bats.
 - The building should not be floodlit.
 - The lighting of driveways and pathways should be at ground level or low level lighting.
 - All lighting should be downward facing and shrouded to prevent light spillage.
- Site clearance.
 - Amphibians and reptiles. The specifics of the clearance of the site with regard to Amphibians are as follows:
 - Any debris piles should be dismantled by hand and the materials kept in skips until moved off site or disposed of.
 - Any debris and materials arising from the proposed construction should be stored in skips and/or on pallets to prevent creating refuge sites for reptiles or amphibians.
 - The clearance of ruderals and vegetation > 300mm in height should be done during spring / summer (Feb to October) when amphibians and reptiles are active, all vegetation should be cut down to 150mm above ground level and left for at least an hour before final clearance to allow any reptiles or amphibians that may be present to disperse or to be carefully relocated to hedgerows in the local vicinity. Once cleared the land should be maintained as bare ground or short mown grassland throughout the development process.
 - If a great crested newt is discovered at any stage of the development, work should cease immediately, and the ECoW should be contacted for further advice.
- Small mammals including hedgehogs.
 - Any debris and materials arising from the proposed construction should be stored in skips and/or on pallets to prevent creating refuge sites for reptiles or amphibians.
 - Clearance of any debris or waste should be done sensitively with consideration to disturbance of hedgehogs.
 - Vegetation above 300mm above ground level should not be cleared until temperatures are above 6C for at least 6 consecutive days to avoid disturbance of hibernating hedgehogs.
 - Any fences that might be erected should include a gap of 150mm long by 100mm high at some point in the base of each run of fencing to enable terrestrial vertebrates, including hedgehogs, to move through the plot and prevent entrapment.

Precautionary mitigation.

- To avoid the risk of causing injury or harm to small mammals, amphibians and reptiles during the construction process the generic method statement attached in appendix 1 should be made available to all contractors.
- Should the Local Planning Authority be minded to grant planning permission then it is advised that the site be maintained as bare ground or close mown grassland until the development works start. Reason, to prevent the establishment of any features of ecological interest becoming established on the site prior to the commencement of works.

Ecological Enhancement. (see Appendix 2. Biodiversity Enhancement Plan)

- Birds. - 2 x Schwegler bird box and 2 x bat box, to be mounted in appropriate locations on the buildings as illustrated in the Biodiversity enhancement plan.
- Marked boundaries should ideally be open post and rail fences that allow easy and free migration of terrestrial vertebrates through the site, or alternatively by mixed species indigenous hedgerows, or a combination of the two.
- The boundary hedgerow as shown on the proposed Biodiversity Enhancement Plan (Appendix 2) is to be mix species indigenous species as described.

Clients responsibility towards protected species.

The site owner has a responsibility to ensure that protected species or their resting places are not killed, injured or disturbed as a consequence of their actions.

Whilst the results of the survey are considered to be conclusive at the time that the survey was conducted, there is always a possibility that protected species might occupy the site between the period of the survey and the commencement of any works on

the site. If any protected species are discovered during any construction works a qualified ecologist should be contacted for advice or assistance.

Contact details of suitably qualified and licenced ecologist:

John Parden, Natural England licenced ecologist (Licence no. 2016-20270-CLS-CLS, 2020-44655-CLS-CLS)

JP ecology – Office: 01379 586830 Mobile:07908 748079

If conditions within the development site / buildings or the development proposals are significantly altered prior to the planning application being submitted then further advice should be sought from an ecologist to ensure that the conclusions of the ecological survey remains valid.

Contents:

- 1.0 Executive summary.
- 2.0 Contact details.
- 3.0 Introduction
 - 3.1 Brief.
 - 3.2 Site development proposals.
 - 3.3 Scope of survey.
 - 3.4 Survey objectives.
 - 3.5 Site and location.
 - 3.6 Desktop survey.
- 4.0 Survey
 - 4.1 Survey methodologies
 - 4.2 Survey results
 - 4.2.1 Habitats
 - 4.2.2 Ponds & watercourses.
 - 4.2.3 Bats
 - 4.2.3.1 Buildings - Scoping survey
 - 4.2.3.2 Trees – Scoping Survey
 - 4.2.3.3 Bat activity survey
 - 4.2.4 Other protected species (including barn owl)
- 5.0 Mitigation
 - 5.1 Further surveys.
 - 5.2 General mitigation.
 - 5.3 Obligatory mitigation
 - 5.4 Precautionary mitigation
 - 5.5 Ecological enhancement
 - 5.6 Clients responsibility towards protected species.

Appendix 1.

Generic method statement to prevent injury or harm to small mammals, reptiles and amphibians during the construction process.

Appendix 2.

Biodiversity Enhancement Plan.

2.0: Contact details:

Architect:

Roberts Molloy
3 Church Lane
Bressingham
Norfolk
IP22 2AE

Client:

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Ecological Surveyor:

JP ecology
John Parden (BSc. PgDip)
2 Jubilee Corner Cottages,
Stradbroke Road,
Fressingfield,
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IP21 5PP.

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Natural England Bats (All species) Licence No. 2015-14697-CLS-CLS (Bats)
2021-53785-CLS-CLS (GCN)

3.0 Introduction:

3.1 Brief:

John Parden (Licensed ecologist) of JP ecology was commissioned by Roberts Molloy (Instructing Architects) to undertake a habitats and protected species survey (All relevant protected species and habitats) in and around the properties and grounds at Hillmora, Bells Lane, Hinderclay, Suffolk. IP22 1HW. The report is to support a planning application including the removal of existing outbuildings to make way for a new dwelling and creation of new site access points.

The existing occupied dwelling and its surrounding managed gardens are to be unaltered and consequently were not subject to survey, other than the proposed new entrance.

3.2 Site development proposals:

Plan 1. Site location plan and block plan. (Illustrative only do not scale)



Plan 2. Showing existing elevations.



The site is subject to a planning application including:

- Divide a single domestic residence into two plots.
- Clearance of existing shed and garages to make way for a new dwelling.
- Removal of 3 trees and sections of hedgerow to create new entrances.

For the purposes of the ecological survey it is assumed that:

- The development will be confined to the property of 'Hillmora', as defined in plan 1 above.
- There will be no temporary ecological impacts outside of the boundaries of the property.
- All access points used for construction traffic and temporary hard standing areas used for the storage of building materials will be within the curtilage of the property as defined in plan 1 above.
- All excess excavated materials will be disposed of away from site.
- No ponds or watercourses will be lost or disturbed by the development works.
- Entrances to be used shall be the existing entrance and the newly created entrances.
- There will be removal of boundary hedgerows and trees to create new entrances to facilitate the development.
- There will be removal of trees to facilitate the development.

3.3 Scope of the survey:

The survey includes:

- A desktop search for protected species and designated sites within 2km radius of the site, the records were supplied by Suffolk Biological Information Services (SBIS).
- The development is classified as 'Minor' based upon:
 - The proposals relate to change of use and conversion of existing buildings.
 - The proposals are for less than 0.5Ha.
- An assessment of the habitats on the site was conducted.
- The buildings subject to clearance were surveyed for protected species (bats and barn owl).
- The trees subject to felling were surveyed for bats.

- A survey of ponds within 100m of the development was conducted and if appropriate they were subject to a Habitat Suitability Index assessment for great crested newts.
- A search was conducted for water courses within 200m of the development site.

3.4 Survey objectives:

The survey aimed to establish:

- Whether protected species were present on the site or within the immediate vicinity of the site and would be impacted upon by the development.
- Whether the development will impact upon any protected habitats.
- Whether the development was likely to have any long-term impact upon the local biodiversity.

3.5 Site & location:

Within the wider landscape:

The site is located within the Parish of Hinderclay, a rural location in Mid Suffolk. The wider surrounding landscape is of medium interest for biodiversity, being dominated by agricultural land used mainly for intensive arable crop production, which is of low ecological interest, but does include associated features of ecological interest such as hedgerows, ditches, drains, pockets of woodland and watercourses.

The village of Hinderclay, built environment, is located to the west, south west and north of the development site.

Within a 2km radius of the site there is one site that is nationally designated for its ecological interest and there is two sites locally designated for their ecological interest (see desktop survey section 3.6 below).

Water features:

There is one ponds within 100m radius of the site shown on OS maps.

There are no watercourses within 200m of the development site.

Urban. The site is located on the north eastern limits of the village of Hinderclay and within the Settlement boundary of the proposed local development plan.

Within the immediate vicinity of the proposed development: The development site is the grounds and gardens of the existing domestic residence known as Hillmora, which is an occupied domestic residence with managed gardens.

The area of the development is currently an existing concrete paved driveway, existing occupied domestic residence, existing gardens, outbuilding currently used for general storage, a well maintained garage used for car restoration.

- To the northern - Built environment, including occupied domestic residence.
- To the east – the wider landholding of Hillmora which exists as recently unmanaged domestic garden.
- To the southern – is a trackway beyond which is built environment, occupied domestic residence.
- To the west – public highway beyond which is occupied domestic residence.

3.6 Desktop Survey

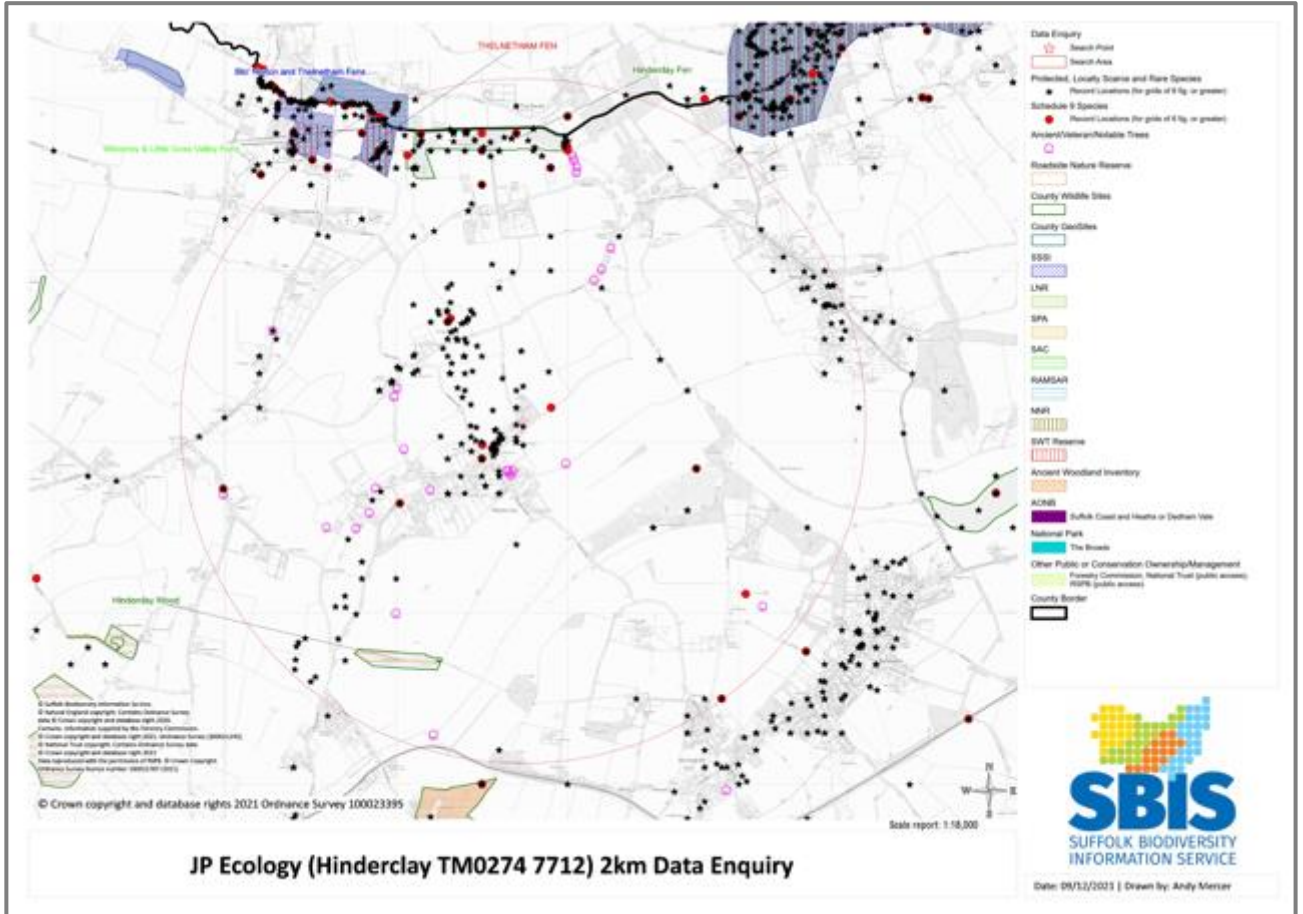
Protected species and habitats:

A search for protected species and habitats was provided by the Suffolk Biological Information Services, (Note: a local records search is not a definitive record of the species diversity within the local area).

There is one records of rare or protected species on or adjacent to the proposed development site. This was for Nightingale listed as being on the adjacent Cowfen Lane at OS grid Ref TM02747709

(For reasons of confidentiality specific grid references of the species listed below have not been included in this report but are available upon request.)

Fig 1. Showing results of local records search: Suffolk.



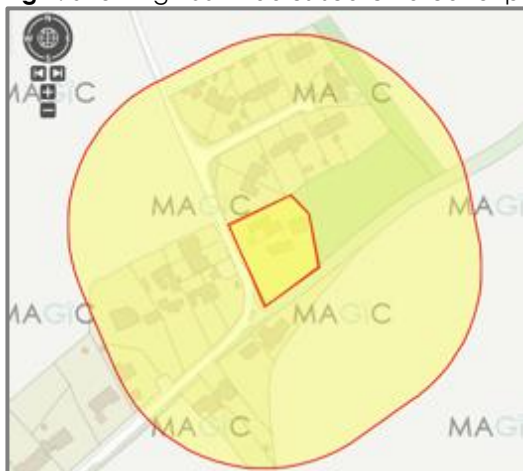
Pond and waterbodies:

A search area of 100m for ponds and 200m for watercourses was considered appropriate based upon:

- Current Suffolk Biodiversity Planning validation guidelines stipulate:
 - A search area of 100m radius for ponds is appropriate for minor development, being less than 0.5Ha or 10 dwellings.
 - A search area of 200m radius for watercourses.

The search for ponds within 100m radius and watercourses within 200m was conducted using Ordnance Survey Data and publicly available Environment Agency data:

Fig 2. Showing 100m radius search area for ponds



Ponds and watercourses within 200m (see fig 3 above):

- Ponds 1 there is one pond shown on OS maps at in the south east corner of the site at OS Grid ref: TM02747708
- There are no permanent or named watercourses shown on OS maps within 200m of the site.

Sites designated for ecological interest within a 2km radius

(ref: local records search SBIS, magic.defra.gov.uk):

Sites of Special Scientific Interest (SSSI).

There are is one site nationally designated for its ecological interest with a 2km radius. Blo'Norton and Thelnetham Fens SSSI. located 1.8km to the north at its closest. Unconnected to the development site by continuous ecological corridors.

County Wildlife Sites (CWS)

There are two locally designated County Wildlife Sites (CWS) within a 2 km radius.

- CWS 85 Hinderclay Fen Approx 1.6Km to the North
Designated for its fenland interest.
Unconnected to the development site by continuous ecological corridors.
- CWS 84 Hinderclay Wood Approx 1.5Km to the South East.
Designated for its Woodland interest.
Unconnected to the development site by continuous ecological corridors.

Of those species potentially relevant to the site for which records were returned.

Bats.

- 11 species of bat have been recorded locally in small numbers (2km radius).
 - Pipistrelle bat (unspecified) 59 records
 - Common Pipistrelle (*Pipistrellus pipistrellus*) 16 records
 - Soprano Pipistrelle (*Pipistrellus pygmaeus*) 21 records
 - Nathusius's pipistrelle (*Pipistrellus nathusii*) 1 record
 - Brown long eared bat (*Plecotus auritus*) 19 records
 - Natterer's bat (*Myotis nattereri*) 33 records
 - Daubenton's Bat (*Myotis daubentii*) 15 records
 - Barbastelle bat (*Barbastella Barbastellus*) 16 records
 - Noctule bats (*Nyctalus noctule*) 26 records
 - Myotis bat (unspecified) 15 records
 - Bat unspecified 10 records
- There are no records of bats on the site.

Reptiles and Amphibians.

- 1 species of amphibian have been recorded locally in small numbers (2km radius)
 - Smooth newt (*Lissotriton vulgaris*) 1 records
 - Common frog (*Rana temporaria*) 3 records
- 5 records of Grass snake (*Natrix helvatica*)

Other species of significance.

- There are 39 records of hedgehog generally distributed throughout the 2km radius search area with

4.0 Surveys.

The site was surveyed by John Parden of JP ecology on:

- Scoping survey 22nd October 2021 & 3rd February 2022
- Bat activity survey 31st May 2022.

The conditions were suitable to conduct conclusive surveys.

4.1 Methodologies

The site was entirely built environment and associated domestic garden within the occupied domestic residence of 'Hillmora'.

The boundaries were hedgerows with trees that were occasionally managed.

A Phase 1 habitat survey following JNCC phase 1 survey methodology was not considered appropriate on this occasion.

Pond Survey - The pond survey was conducted following standard survey methodologies appropriate for Great crested newts, specifically the Great Crested Newt Habitat Suitability Index Assessment (HSI) (Oldham *et al.* 2000) and Natural England Standing Advice Sheet: Great crested newts. The results were interpreted in accordance with Natural England Guidance.

Bat Survey – the bat survey was conducted in accordance with the guidance described in 'Bat Survey Good Practice Guidelines 3rd edition' 2016.

Other species were surveyed by looking for tracks, droppings, feeding evidence and field signs.

4.2 Scoping Survey Results.

4.2.1 Habitats.

Habitats within the defined development are entirely.

- Concrete driveway and parking area.
- Occupied domestic residence.
- Existing outbuildings.
- Domestic garden falling into the categories of:
 - Frequently managed gardens with close mown lawn and shrub beds.
 - Occasionally managed garden (possibly former vegetable garden) maintained by occasional strimming / seasonal clearance.
- Boundary hedgerows with trees.

Photo number	Image.	Notes.
1		Showing the existing occupied domestic residence, to be unaltered and unaffected by the development proposals. Also showing the concrete driveway / parking area and managed gardens.










Table 1. Illustrating habitats on the site.		
Photo number	Photo number	Photo number
2 to 4	Photo 2	Showing typical images of the existing well managed garden which is predominantly close mown lawn with established shrubs.
		
	Photo 3	
		
	Photo 4	
		
5		Showing the area of occasionally managed / seasonally cleared garden. The area appeared to have been strimmed within the previous few months with regrowth of nettles and bramble coming through Also showing the outbuildings / garden sheds.

Table 1. Illustrating habitats on the site.		
Photo number	Photo number	Photo number
6		Showing area of concrete paved driveway, also showing the existing domestic residence and the metal framed garage / workshop.
7		Showing the outbuildings / garden sheds. Also showing mown lawn surrounding them.
8		Showing outbuildings / garden sheds.
9		Showing boundary hedgerow which was predominantly hawthorn, ash and blackthorn, with bramble and ivy.

4.2.2 Ponds and watercourse

The pond shown on OS maps was found to be infilled and dry.

Table 2. Illustrating habitats on the site.		
Photo number	Photo number	Photo number
10		Showing the area within the hedgerow where the pond is shown on the OS maps. The pond was dry at the time of all the surveys and was well vegetated with ivy suggesting that the pond had become infilled and it had not recently held water for some considerable period of time (years).

Watercourse

There are no permanent or named watercourses within 200m

Discussion and conclusions.

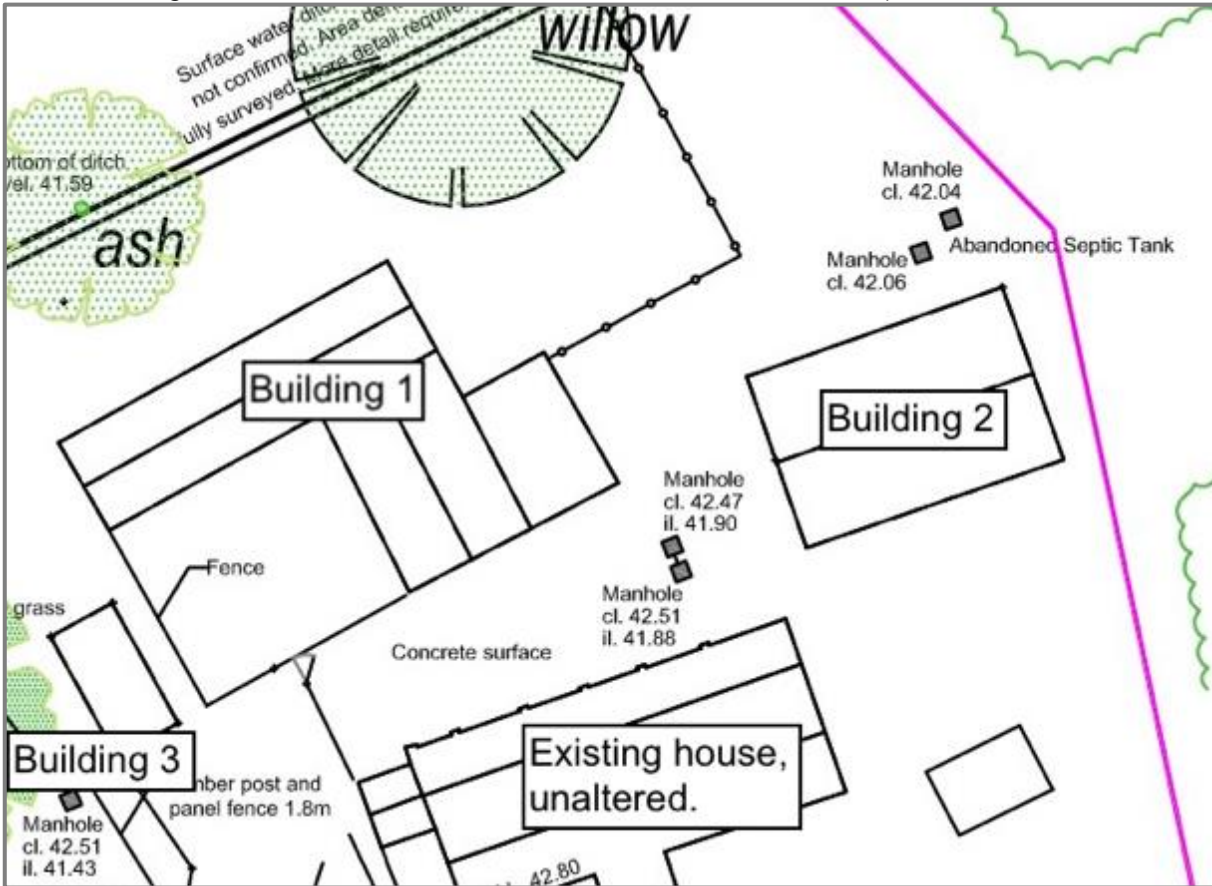
It is reasonable to conclude that Great crested newts, and amphibians generally, will not be a consideration based upon:

- There are no ponds within 100m of the development site.

4.2.3 Bats.

The site includes the removal of 3 structures and 3 trees as illustrated in plan 4 and 5 below.

Plan 3. Showing location of structures to be removed to facilitate the development



Plan 4. Showing trees to be removed to create new entrances.



4.2.3.1 Buildings – Scoping survey results.

Building 1.

The building was a complex of timber frame outbuildings which are being used as garden sheds general storage and a wood store.

The structures are constructed around a simple timber frame without complex joints within which bats could potentially roost.

The walls are supported on a simple stud frame and clad externally with a combination of timber and corrugated metal sheeting. The lap boarding is mostly loose fitting with gaps.

The roof was clad with a combination of unlined traditional pan-tiled and corrugated metal sheeting which do not offer bat roosting opportunities.

The structure had no voids or loft spaces that could be used by roosting bats.

Open doorways, unglazed windows gaps in roof tiles and between timber all offer easy access for bats.

A thorough search of the building using torches and an endoscope found no bats or evidence of bats in the form of bat droppings, urine splashes, feeding remains, scratch marks or polishing.

Internally the building was dusty and was extensively covered in cobwebs suggesting bats were not present within or flying within the building. Stored items such as old windows had developed a coating of dust and would have shown evidence of bats in the form of urine splashes or droppings if bats were present.

The building does offer limited bat roosting opportunities behind timbers, facias etc.







Table 3: Building 1. Illustrating survey results.		
Photo No.	Image.	Notes.
Photo 11		General image of the building showing the construction with timber frame clad with corrugated metal sheet with some timber cladding to the gables. Open sided on the west facing elevation.
Photo 12		Showing metal and pan tiled roof cladding and timber and metal wall cladding.

Table 3: Building 1. Illustrating survey results.		
Photo No.	Image.	Notes.
Photo13		Showing timber frame simple joints also showing metal roof cladding and metal and timber wall cladding with gaps.
Photo 14		Showing timber frame and timber wall cladding with loose fitting timber cladding.
Photo 15		Showing simple roof construction with pantile cladding, unlined within.
Photo 16		Showing typical dust covered stored item without any evidence of bats in the form of urine splashes or droppings.

Discussions and conclusions.

Classification of the buildings bat roosting potential.

The building was assessed as having 'low' suitability for roosting bats based upon:

- The building is of traditional timber frame construction with timber cladding with some bat roosting opportunities behind limber soffits, loose timbers, etc.
- The building was open well illuminated by windows and open doorways and was light and drafty internally which is generally unfavourable for bats.
- There were open joints, voids, enclosed cavities etc that offer highly favourable bat roosting opportunities.
- There was no evidence of bats found within the buildings.

Further Surveys.

In accordance with current best practice guidelines, ('Bat Survey Good Practice Guidelines 3rd edition' 2016). For building of 'low' bat roosting suitability a single bat activity survey conducted between May and September is recommended to give confidence to the scoping survey results (Table 7.1 of above referenced document).

Building 2. A cement fibre clad garage / workshop constructed around a metal frame.

The structure is a simple metal framed building clad with cement fibre sheeting. The building is currently being used for car restoration and is maintained in a tidy manor internally. The structure has a ceiling which creates an enclosed void. There are no open joint or cavities within the buildings fabric which offer roosting opportunities for bats.

A thorough search of the building and the cavity above the ceiling found no bats, or evidence of bats in the form of bat droppings, feeding remains, urine splashes, polishing, or scratch marks.





Table 4: Building 2. Illustrating survey results.		
Photo No.	Image.	Notes.
17		General image of the building. To show it construction from cement fibre sheeting.
18		Showing the interior of the building, which is well illuminated by light from windows along its sides.

Table 4: Building 2. Illustrating survey results.		
Photo No.	Image.	Notes.
Photo 19		Showing the lining to the ceiling.
Photo 20		Showing the void above which was accessed and searched for evidence of bats, non was found.

Discussions and conclusions.

Classification of the buildings bat roosting potential.

The building was assessed as having 'negligible' suitability for roosting bats based upon:

- The building is of a metal framed construction with cement fiber cladding and offers no bat roosting opportunities within its fabric / construction.
- There was no evidence of bats found within the buildings.

Further Surveys.

In accordance with current best practice guidelines, ('Bat Survey Good Practice Guidelines 3rd edition' 2016). No further bat activity surveys are required for buildings of 'Negligible' bat roosting (Table 7.1 of above referenced document).

Building No 3. Small garage.



The structure is a simple metal framed building clad with cement fibre sheeting.

The building is currently an empty garage.

The structure has no enclosed void.

There are no open joint or cavities within the buildings fabric which offer roosting opportunities for bats.

A thorough search of the building found no bats or evidence of use by bats in the form of form of bat droppings, feeding remains, urine splashes, polishing, or scratch marks.

Table 5: Building 3. Illustrating survey results.		
Photo No.	Image.	Notes.
21		Showing the exterior of the garage.
22		Showing the interior of the garage and its simple metal frame construction with cement fibre cladding.

Discussions and conclusions.

Classification of the buildings bat roosting potential.

The building was assessed as having 'negligible' suitability for roosting bats based upon:



- The building is of a metal framed construction with cement fiber cladding and offers no bat roosting opportunities within its fabric / construction.
- There was no evidence of bats found within the buildings.

4.2.3.1 Trees – Scoping survey results.

There are three trees that will require removal to create the proposed new entrances as shown in plan 5 above.

All are ash trees of an estimated age of 20 -25yrs. All trees are in good health without broken limbs, rot holes or crevices that could be used by roosting bats.

All trees have young / recently established ivy growth becoming established on them. The ivy is young, closely adhered to the tree and without interlaced stems typical of old / well established ivy. The ivy offered no bat roosting opportunities.

Photo No.	Image.	Notes.
23	<p>Tree 1</p> 	<p>Tree 1. A multi-stemmed ash tree of approx. 20-25yrs. In good health. Recent Ivy growth is becoming established, however it does not have interlaced stems that could potentially offer roosting opportunities for bats.</p>
24	<p>Tree 2 & 3</p> 	<p>Ash trees of an estimated age of 20-25yrs. In good health. Recent Ivy growth is becoming established, however it does not have interlaced stems that could potentially offer roosting opportunities for bats.</p>

Classification of the tree bat roosting potential.

The trees were assessed as having 'Low' suitability for roosting bats based upon:

- The trees were young and in good health without crack or rot holes.
- The trees have ivy becoming established on their trunks, however this is recent growth and as such has not developed to the point of offering roosting opportunities for bats.

In accordance with bat survey guidelines no further surveys are required to support the findings.

4.2.3.2 Building – Bat activity survey results.

The building was subject to a single bat activity survey to give confidence to the scoping survey results

The survey was conducted on 31st May 2021.

The conditions on the day were favourable and suitable to give a conclusive outcome.

- Temp 14C start to 11C end.
- No rain.
- 100% cloud.
- Slight from south.

The survey was conducted by:

John Parden NE licence number 2015-14697-CLS-CLS

- Equipment – Anabat SD2, Batbox Duet, Echo Meter Touch.

M Finnemore NE licence number 2015-10714/4-CLS-CLS

- Equipment – Anabat Express, Batbox Duet, Echo Meter Touch

P. Barnett (trainee)

- Equipment – Anabat Express, Batbox Duet.

Remote detector within building.

- Anabat Express within the building.

Survey start time: 20:52.

Sunset: 21:15

Survey end time: 22:45

Results of observed bat activity ('heard not seen' and bat activity observed away from the proposed development site are not listed)

Time	Species	Number	Bat activity
21:42-21:43	Common Pipistrelle	1	From west to east foraging and passing
21:47	Common Pipistrelle	1	From south passing to the east.
21:58	Common Pipistrelle	1	From west to east passing

Results of remote detector within building.

No bats recorded within building.

Fig 4. Illustration of bat activity results.



Discussion and conclusion.

No bats were observed emerging from the buildings.
The level of bat activity was low, with only three passing bats observed.
Remote detectors within the building did not record any bat activity.

It is reasonable to conclude that the buildings are not being occupied by bats.

4.2.4 Other protected species.

No evidence was found to suggest the buildings were being used by other protected species, including nesting barn owl.

Nesting birds. No actively nesting birds were found on the site however birds will nest in the most unlikely of locations and as such nesting birds are always a consideration on all development sites.

There was no evidence to suggest any other protected species were using the proposed development site.

5.0 Mitigation.

5.1 Further surveys.

- No further surveys are required to support the findings of the scoping survey and bat activity survey.

5.2 General mitigation – all species.

- The contact details of a suitably licenced ecologist should be made available to the development contractors.
- Advice must be sought from an ecologist if any protected species are inadvertently disturbed.

5.3 Obligatory mitigation.

- An Ecological Clerk of Works (ECoW) should be appointed prior to commencement to respond in the event that any ecological issues arise during the construction process or any protected species are inadvertently disturbed.
- Nesting birds –
 - Nesting birds should not be disturbed during the nesting season typically 1st March to 31st August (species dependant).
 - Should it be necessary to strip the site during the nesting season, specifically demolition of the barn, removal of hedgerows or felling of trees, then the site should be searched by the ECoW for nests and any active nests protected until the young have fledged.
- Bats
 - All external lighting should be sensitive to bats.
 - The building should not be floodlit.
 - The lighting of driveways and pathways should be at ground level or low level lighting.
 - All lighting should be downward facing and shrouded to prevent light spillage.
- Site clearance.
 - Amphibians. The specifics of the clearance of the site with regard to Amphibians are as follows:
 - Any debris piles should be dismantled by hand and the materials kept in skips until moved off site or disposed of.
 - Any debris and materials arising from the proposed construction should be stored in skips and/or on pallets to prevent creating refuge sites for reptiles or amphibians.
 - The clearance of ruderals and vegetation > 300mm in height should be done during spring / summer (Feb to October) when amphibians and reptiles are active, all vegetation should be cut down to 150mm above ground level and left for at least an hour before final clearance to allow any reptiles or amphibians that may be present to disperse or to be carefully relocated to hedgerows in the local vicinity. Once cleared the land should be maintained as bare ground or short mown grassland throughout the development process.
 - If a great crested newt is discovered at any stage of the development, work should cease immediately, and the ECoW should be contacted for further advice.
 - Small mammals including hedgehogs.
 - Any debris and materials arising from the proposed construction should be stored in skips and/or on pallets to prevent creating refuge sites for reptiles or amphibians.
 - Clearance of any debris or waste should be done sensitively with consideration to disturbance of hedgehogs.
 - Vegetation above 300mm above ground level should not be cleared until temperatures are above 6C for at least 6 consecutive days to avoid disturbance of hibernating hedgehogs.
 - Any fences that might be erected should include a gap of 150mm long by 100mm high at some point in the base of each run of fencing to enable terrestrial vertebrates, including hedgehogs, to move through the plot and prevent entrapment.

5.4 Precautionary mitigation.

- To avoid the risk of causing injury or harm to small mammals, amphibians and reptiles during the construction process the generic method statement attached in appendix 1 should be made available to all contractors.
- Should the Local Planning Authority be minded to grant planning permission then it is advised that the site be maintained as bare ground or close mown grassland until the development works start. Reason, to prevent the establishment of any features of ecological interest becoming established on the site prior to the commencement of works.

5.5 Ecological Enhancement (Illustrate in Biodiversity enhancement plan, Appendix 2).

- Birds. - 2 x Schwegler bird box and 2 x bat box, to be mounted in appropriate locations on the buildings.
- Marked boundaries should ideally be open post and rail fences that allow easy and free migration of terrestrial vertebrates through the site, or alternatively by mixed species indigenous hedgerows, or a combination of the two.
- The hedgerows down on the development plans should be planted with a mixed indigenous species hedgerow (see Appendix 2 Biodiversity Enhancement Plan for details of species and planting density).

5.6 Clients responsibility towards protected species.

The site owner has a responsibility to ensure that protected species or their resting places are not killed, injured or disturbed as a consequence of their actions.

Whilst the results of the survey are considered to be conclusive at the time that the survey was conducted, there is always a possibility that protected species might occupy the site between the period of the survey and the commencement of any works on the site. If any protected species are discovered during any construction works a qualified ecologist should be contacted for advice or assistance.

Contact details of suitably qualified and licenced ecologist:

John Parden, Natural England licenced ecologist (Licence no. 2016-20270-CLS-CLS, 2021-53785-CLS-CLS)

JP ecology – Office: 01379 586830 Mobile:07908 748079

If conditions within the development site / buildings or the development proposals are significantly altered prior to the planning application being submitted then further advice should be sought from an ecologist to ensure that the conclusions of the ecological survey remains valid.

Appendix 1.

Generic method statement to avoid harm to reptiles, amphibians and small mammals including hedgehogs and brown hare.

Timing:

- (a) Restrict works to the winter period (when amphibians are rarely active above ground) if the site is close to aquatic habitats or Amphibians are relevant to the site.
- (b) Keep duration of groundworks as short as possible.

Construction methods and special precautions:

- (a) Backfill trenches and other excavations before nightfall, or leave a ramp to allow newts to easily exit.
- (b) All open trenches, footings, and pipe runs should be covered with shuttering ply overnight and the edges sealed with damp sand.
- (c) Raise stored materials (that might act as temporary resting places) off the ground, eg on pallets.
- (c) For pipelines, use directional drilling to cross areas of core habitat and newt dispersal routes.
- (d) All caustic materials (cement, lime plaster etc) should be mixed on tarpaulin and folded at night or mixed on the floor of a sealed building.
- (c) No caustic material should be allowed to contaminate the adjacent ground or allowed to form run-off that may contaminate ponds or watercourses.
- (d) All piles of rubble and spoil should be removed from site and not left during late summer / winter to form hibernacula for Amphibians and reptiles.
- (e) All waste materials should be stored in skips resting on areas of shingle/bare or hard standing.
- (f) Keep vegetation around the developed site should be kept short to discourage use by reptiles and amphibians.
- (g) Fire sites should be in a designated area on shingle/bare ground and well away from the ponds/water bodies and should be burnt daily, they should always be checked for sheltering mammals eg. Hedgehogs.
- (f) Avoid installing structures that act as barriers close to ponds, or include gaps at ground level where walls or fences are unavoidable to prevent entrapment of reptiles, amphibians or small mammals within the construction area.
- (g) If any protected species (e.g. bats, great crested newts) are discovered during the redevelopment then work should stop immediately and advice sought from an ecological consultant.
- (h) If in any doubt contact a Natural England Licenced ecologist:
John Parden of JP ecology 01379 586830

Appendix 2.

Biodiversity Enhancement Plan.

The contact details of a suitably licenced ecologist should be made available to the development contractors.

Advice must be sought from an ecologist if any protected species are inadvertently disturbed.

External lighting - Bats

- All external lighting should be sensitive to bats.
 - The building should not be floodlit.
 - The lighting of driveways and pathways should be at ground level or low level lighting.
 - All lighting should be downward facing and shrouded to prevent light spillage.

Site clearance.

- Amphibians. The specifics of the clearance of the site with regard to Amphibians are as follows:
 - Any debris piles should be dismantled by hand and the materials kept in skips until moved off site or disposed of.
 - Any debris and materials arising from the proposed construction should be stored in skips and/or on pallets to prevent creating refuge sites for reptiles or amphibians.
 - The clearance of ruderals and vegetation > 300mm in height should be done during spring / summer (Feb to October) when amphibians and reptiles are active, all vegetation should be cut down to 150mm above ground level and left for at least an hour before final clearance to allow any reptiles or amphibians that may be present to disperse or to be carefully relocated to hedgerows in the local vicinity. Once cleared the land should be maintained as bare ground or short mown grassland throughout the development process.
 - If a great crested newt is discovered at any stage of the development, work should cease immediately, and an ecologist should be contacted for further advice.
- Small mammals including hedgehogs.
 - Any debris and materials arising from the proposed construction should be stored in skips and/or on pallets to prevent creating refuge sites for reptiles or amphibians.
 - Clearance of any debris or waste should be done sensitively with consideration to disturbance of hedgehogs.
 - Vegetation above 300mm above ground level should not be cleared until temperatures are above 6C for at least 6 consecutive days to avoid disturbance of hibernating hedgehogs.
 - Any fences that might be erected should include a gap of 150mm long by 100mm high at some point in the base of each run of fencing to enable terrestrial vertebrates, including hedgehogs, to move through the plot and prevent entrapment.

Enhancement (see plan below).

- Bat boxes.
 - Two x Schwegler 2FE built in bat boxes (or similar) to be erected as high as possible on the northern and southern gables. To be mounted as high as is practically possible.
- Bird nest boxes.
 - Two x House sparrow terrace nest boxes to be installed below the eaves on the southern elevation.
- Boundary hedgerows. (est 35 - 40 linear meters in total)
 - To be indigenous species hedgerows. Species composition to be 35% hawthorn, 15% blackthorn, 15% field maple, 15% beech, 8% holly, 2% wild privet, 2% guelder rose, 4% dog rose, 2% elder, 2% blackthorn.
 - To be planted in two parallel rows @ 400mm centres, (5 plants per meter in twin rows).
 - All to be protected with rabbit guards.

Plan to illustrate Biodiversity Enhancements.

