Ecological Assessment Report

Ferndale, Hittisleigh, Devon, EX6 6LL

Prepared for: : Patrick Steel

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Date: April 2022

Redstone Ecology Ltd
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[redacted]

Contents

Appendices

Summary

S1. This report has been prepared by Redstone Ecology Ltd to inform a proposed extension to a bungalow called Ferndale in Hittisleigh, Devon EX6 6LL.

S2. The site comprises an existing bungalow with a separate double garage and former stables surrounded by garden habitats. To the east is a former paddock bound by fence and native hedgerow. The bungalow is located within a farm with agricultural land in the wider area.

S3. The habitats which are to be impacted on by the extension are of negligible ecological importance although a bat roost has been recorded within the loft of the bungalow. No evidence of nesting birds was recorded although features were present which could support species such as house sparrow *Passer domesticus* and blue tit *Cyanistes caeruleus*.

S4. The proposals require the demolition of the garage with the single storey extension replacing this structure and extending over hardstanding. The full conversion of the loft space of the bungalow would be covered by a Natural England licence and the proposed mitigation would ensure that the favourable conservation status of the population of bats using the site would be maintained.

S5. The proposals would ensure there would be no lighting of any access points or foraging and commuting bat habitat. Furthermore, the proposals would include a new native hedgerow and six fruit trees along with the provision of bat and bird boxes on suitable trees which would enhance the site for these species post development. This is all within land which is within the ownership of the client.

S5. The proposed development would protect, maintain and enhance biodiversity in accordance with policies concerning the conservation of biodiversity in the National Planning Policy Framework (2021) and Policy S1: Sustainable development priorities, Policy S9: Environment and Policy DM28 Other Protected sites: Mid Devon Local Plan (Adopted July 2020). The proposed mitigation would ensure there would be no adverse effects on the favourable conservation status of bats in the locality.

Section 1: Introduction

Introduction

1.1. Redstone Ecology was commissioned by Patrick Steel to produce an Ecological Assessment Report to support a planning application for the extension of an existing bungalow called Ferndale in Hittisleigh, Devon, EX6 6LL (refer to Figure 1); approximate Grid Ref. SX 72062 94777. This report was undertaken following BS42020:2013 and Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines (2018). As the site is primarily built-form, the scope of the report focuses on roosting bats and nesting birds and includes the following sections:

Results of the desk study, bat and nesting bird survey for the site;
Assessment of the impacts of the proposals on bats and nesting birds;
Provision of mitigation and enhancement measures for adverse impacts;
Summary of residual effects i.e. those occurring after mitigation; and
Wildlife Checklist and Conservation Action Statement (refer to Appendix 1) as required under the Devon County Council planning guidelines.

Figure 1: Aerial photograph showing site location

Legislation and planning policy

National planning policy

1.2. The Government's key national planning policy is set out in the National Planning Policy Framework (NPPF), published in 2021. The NPPF includes the Government's policy on the protection of biodiversity through the planning system. It states that local plan policies and planning decisions should seek to minimise impacts on biodiversity and provide net gains in biodiversity. Planning policies should promote the conservation, restoration and enhancement of priority habitats, ecological networks, and the protection and recovery of priority species populations (e.g. Habitats and Species of Principal Importance under the NERC Act 2006).

Local planning policy

1.3. Policy S1: Sustainable development priorities, Policy S9: Environment and Policy DM28 Other Protected sites: Mid Devon Local Plan (Adopted July 2020) is relevant to this proposed development. These policies require development to conserve, protect and enhance biodiversity. Development that adversely affects habitats and species should be avoided or, in exceptional circumstances, ensure that any harm is mitigated within the development or, as a last resort, appropriate compensation provided. It also states that proposals should protect international, European, national and local designated sites.

Wildlife legislation

1.4. Bats and their roosts are fully protected by UK legislation, and all birds, and their nests, eggs and young are protected under UK legislation. Several bat and bird species are also Species of Principal Importance for Conservation of Biodiversity in England (Priority). Full details are provided within Appendix 2.

Methodology

Desk study

1.5. Information on statutory designated sites of nature conservation value within 1km of the site was obtained by searching the following websites and resources:

MAGIC website (www.magic.gov.uk); and

Devon County Council Environmental Viewer (http://map.devon.gov.uk/DCCViewer).

1.6. In addition to this a 2km search was undertaken from Devon Bat Group and a 2km search for European Protected Species Licences using MAGIC. The information obtained from the above websites and sources was considered sufficient for this ecological assessment given the small size of the site and low value habitats that occurs on-site.

Bats

1.7. A Preliminary Roost Assessment of the building was undertaken on 19th April 2022 in accordance with standard bat survey protocols (Collins, 2016). This involved a detailed search of the interior and exterior of the buildings for evidence of bats (e.g. bats, droppings, feeding remains, staining). Information on potential or actual bat access points and roost locations were also recorded. Ladders and high-powered torches were used as necessary and the survey was carried out under a Natural England bat survey licence (John Polley MCIEEM Licence No. 2015-11916-CLS Level 2).

1.8. Based on the survey results, each building was categorised in line with current Bat Conservation Trust guidelines (Collins, 2016).

Birds

1.9. A search for evidence of nesting birds (i.e. active or disused nests) was undertaken during the building inspection on 19 April 2022.

Survey limitations

1.10. All surveys were undertaken following best practice guidelines and no limitations were noted. The survey also included an assessment of the other habitats present.

Quality assurance and surveyor experience

1.11. The author and lead surveyor John Polley has over 15 years' experience working in the ecological sector and is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He has extensive experience of protected species survey and Natural England licensing. He holds a Class 2 Natural England (NE) bat survey licence. CIEEM's Code of Conduct was followed during the survey and reporting.

Section 2: Ecological Baseline

Desk Study

2.1. There are no statutory designated sites within 1km of the site.

2.2. This site is located within a Site of Special Scientific Interest Impact Risk Zone however the criteria for any potential impacts are from developments including airports, helipads and other aviation proposals, livestock and poultry units and general combustion processes >50MW energy input including waste incineration.

2.3. There are no known non-statutory designated sites within 1km of the site identified using Devon Mapper.

2.4. The site is not within a cirl bunting consultation zone or a great crested newt consultation zone.

2.5. There are no European Protected Species Licences within 2km of the site.

2.6. The Devon Bat Group 2km data search identified the following species within the data set:

Barbastelle *Barbastella barbastellus* – nearest record was the recording of a flying bat 1.8 km from the site in 2014.,

Greater horseshoe *Rhinolophus ferrumequinum*– nearest record was the recording of an unknown roost within a house 1.5 km from the site in 1994

Brown long-eared *Plecotus auritus* – nearest record was the recording of a unknown roost within a property 1.1km from the site in 1997

Lesser horseshoe *Rhinolophus hipposideros* – nearest record was the recording of a unknown roost within a property 1.1km from the site in 1997

Common pipistrelle *Pipistrellus pipistrellus*– nearest roost was a unknown roost located 1.6 km from the site in 2000

Noctule *Nyctalus noctule* - – nearest record was the recording of a flying bat 1.8 km from the site in 2014.,

Soprano pipistrelle *Pipistrellus pygmaeus* - no recorded roosts but nearest record was flying bat 1.6 km from the site in 2015.

Myotis species *Myotis* sp. - no recorded roosts but nearest record was flying bat 1.8 km from the site in 2014

Habitats/species within the site

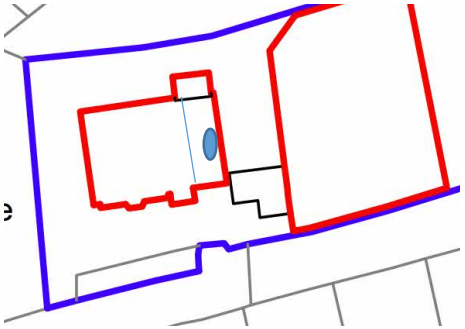
Habitat/ Species	Description /Likely presence	Importance	Photo
Amenity grassland and Improved Grassland (Modified Grassland)	Surrounding the site was areas of amenity and Improved grassland used as the garden of the bungalow and also as a former paddock for horses. The sward was dominated by perennial rye grass and white clover with frequent broad leaved dock, daisy, ribwort plantain and dandelion. Cocksfoot and Yorkshire fog were occasionally recorded. Species rarely recorded included common mouse ear, creeping buttercup and spear thistle.	Negligible	

Habitat/ Species	Description /Likely presence	Importance	Photo
			

Habitat/ Species	Description /Likely presence	Importance	Photo
Building	A brick built bungalow was present with a pitched slate covered roof. Windows and soffits were uPVC and tight fitting. Single chimney and two Velux windows were present along with a skylight and flue. Adjacent to the bungalow was a timber built double garage which had a felted pitched roof. A stable was also on site but this is not to be impacted by the proposals.	No inherent ecological importance	 

Habitat/ Species	Description /Likely presence	Importance	Photo
Hedgerow	A species rich defunct hedgerow formed the southern boundary of the paddock. This included abundant hawthorn with occasional holly, ash, blackthorn. Rarely recorded species included rose, hazel, elder, bramble and ivy. The hedge was unmanaged and c.6m high. This was on a hedgbank. Ground flora species were dominated by nettle with occasional cleavers, ivy, herb Robert, soft shield fern and primrose.	Local	
Nesting Birds	The bungalow, garage and hedgerow provided suitable nesting habitat for urban species including house sparrow, blue tit and black bird although no evidence was recorded during the site inspection.	Site	N/A
Reptiles and amphibians	No breeding habitat on site or within 250m of the site boundary. Site falls outside of the GCN consultation zone. Reptiles and amphibians could utilise the boundary native hedgerow and presence was assumed.	Site	N/A

Habitat/ Species	Description /Likely presence	Importance	Photo
Hazel dormouse	Hedgerow could potentially support foraging and nesting hazel dormouse and presence assumed	Local	N/A
Badger	No evidence of badger was recorded within the site although badgers could use the wider area for foraging and sett building.	Negligible	N/A
Bats	Bat roost which is likely to be a day roost used by a low population <3 brown long eared bats recorded within the loft space of the bungalow. C. 500-1000 droppings recorded beneath ridge. Roost area c.6m wide x 2.8m long x 2.5m ceiling to apex. Bitumen sarking and breathable membrane present with ridge beam and brick chimney. Access points likely at gable end with lifted tiles or around chimney. Potential for crevice dwelling species such a common pipistrelle around the Velux windows and beneath lifted tiles. Further surveys to be completed in May and July 2022 to confirm roost status and droppings to be DNA analysed to confirm species. Data to be submitted as an Addenda once complete. No potential roost suitability in garage. Hedgerow and garden habitats provide optimal foraging and commuting habitat for a variety of species including light sensitive species including horseshoe bats.	Local	

Habitat/ Species	Description /Likely presence	Importance	Photo
			  = location of concentration of bat droppings

Section 3: Assessment of ecological effects

The proposed development

3.1. The proposed development would comprise converting the full extent of the loft space within the existing bungalow and also constructing a single storey extension onto the eastern gable end which would require the demolition of the existing double garage. The extension would impact on hardstanding. The existing native hedgerow would be retained and protected (refer to Appendix 3).

3.2. Bird and bat boxes would be installed on the existing building and trees in the retained hedgerow (refer to Appendix 4). Proposals also include a new native hedgerow within the garden and six fruit trees (refer to Appendix 4).

Unmitigated effect during construction

3.3. No effects on designated sites of nature conservation value are predicted during construction.

3.4. There is a risk that demolition could disturb a nesting bird should this be undertaken in the bird breeding season (March to August inclusive). This is predicted to be a negative effect at Site level.

3.5. Without mitigation the full conversion of the loft space in the bungalow would result in the loss of roosting habitat including disturbance and obstruction of access points and possibly killing and injury of bats. The new extension would tie into the lower part of the roof which has not been identified as containing a roost and this part of the works is unlikely to cause any impact to bats.

3.6. This is predicted to be a negative effect at the Local level.

3.7. Without mitigation, construction would not be compliant under the Wildlife & Countryside Act 1981 (as amended) or the Conservation of Habitats and Species Regulations 2017 (as amended). Mitigation measures to ensure legal compliance would be implemented; refer to Section 4.

Post construction effects

3.8. No adverse effects on designated sites of nature conservation value are predicted.

3.9. The proposed bat boxes and retention of access points around the Velux windows within the roof of the bungalow and bat boxes on the trees would provide roosting habitat suitable for pipistrelle and long-eared bats. No increase in lighting is anticipated as a result of the proposed development. Overall post-construction impacts to bats would be Negligible in the long-term.

3.10. The proposed bird boxes and proposed native hedgerow and fruit trees would provide an increase in bird nesting habitat and therefore overall post-construction impacts to breeding birds would be Negligible in the long-term.

Section 4: Mitigation, compensation and enhancement

Habitats

4.1. The proposals would include native hedgerow planting and six fruit trees within the garden to the property to provide additional habitat for foraging bats and birds (refer to Appendix 4).

Bats

General

4.2. The following section details the 'Conservation Action Statement' for protected species impacted by the proposed development as required under the Wildlife Checklist (refer to Appendix 1).

Licence application

4.3. As a bat roost has been recorded within the bungalow, a Natural England Mitigation Licence would be required prior to the proposed works being undertaken. If the additional surveys confirm this to be a day roost for brown long-eared bats then this would be covered by a Low Impact Class Licence. Should the results record any roosts not covered by a Low Impact Licence then this would be covered by a full European Protected Species Licence. Either application would be applied for on receipt of full planning and once any relevant ecological conditions are discharged.

4.4. Prior to the start of the proposed works, three bat boxes (3 x timber bat boxes) would be installed on the mature trees within the hedgerow of the garden. The exclusion of bats from the loft space could be undertaken any time of year as it is unlikely to be a breeding roost nor a hibernation roost.

4.5. A 'Toolbox Talk' would be given by a bat ecologist to all personnel involved in the conversion works to the loft space. The toolbox talk would ensure site personnel are aware of the legal protection of bats and what to do in the unlikely event that bats were discovered during the works. A pre-works survey would be undertaken by a licensed bat ecologist to remove any roosting bats by hand and release them into a bat box on the tree. The licensed ecologist would also oversee the removal of the chimney; any bats found would be transferred in the same way.

Roosting provision within the building

4.6. In order to enable bats to continue to use the site post works a replacement woodcrete bat box would be installed on the eastern gable end of the bungalow as close to the eaves as possible. Bat boxes for bat roosts which contain low numbers of brown long-eared bats are deemed acceptable mitigation as per the bat mitigation guidelines,

Birds

4.7. The bird nesting season typically runs from March through to the end of September. If it is necessary to start works in the bird nesting period, then a pre-works check for nesting birds should be undertaken by an ecologist. If nesting birds were found, work in that area would need to be delayed until all chicks had fledged.

4.8. Three nest boxes (3 x traditional wooden bird boxes) would be installed on suitable features within the garden habitats of the site.

Mechanism for mitigation delivery

4.9. The proposed bat mitigation would be secured in the long-term by a Natural England Bat Mitigation Licence. Furthermore, the ecological mitigation measures detailed in this report could be secured through a planning condition.

Section 5: Residual effects and conclusions

Construction effects

5.1. Adverse effects on bats could occur through loss of roosts and disturbance to bats during construction; potential effects of killing, injury and roost obstruction would be avoided through ecological supervision. The disturbance effect would, however, be acute, low-level (Sub-Parish).

5.2. Bat boxes would be installed on a tree prior to works commencing to ensure that the ecological functionality of the site was maintained for roosting bats throughout the development. In order to ensure legal compliance during construction, all works would be carried out under a Natural England Mitigation Licence. Ecological supervision would be undertaken by the Licensed bat ecologist during removal of the bat roost features.

5.3. No effects on designated sites, nesting birds or other species are anticipated during construction.

5.4. Post-construction effects

5.5. The proposed new native hedgerow planting and fruit trees would provide an overall habitat enhancement that would be beneficial at the Sub-Parish level in the long-term.

5.6. Effects on the bats in the post-construction phase are considered to be Negligible. The proposed bat boxes would provide replacement roosting habitat for long-eared bats (refer to Appendix 4). The population of bats would, therefore, be maintained at a Favourable Conservation Status in the locality.

5.7. The proposed bird boxes on trees would enhance the site for birds resulting in a beneficial effect at the Sub-Parish level.

Conclusions

5.8. The proposed development would protect, maintain and enhance biodiversity in accordance with policies concerning the conservation of biodiversity in the National Planning Policy Framework (2021) and Policy S1: Sustainable development priorities, Policy S9: Environment and Policy DM28 Other Protected sites: Mid Devon Local Plan (Adopted July 2020). The proposed mitigation would ensure there would be no adverse effects on the favourable conservation status of bats in the locality.

References

Chartered Institute of Ecology and Environmental Management (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater and Coastal. CIEEM, Winchester.

Collins, J. (Ed) 2016. Bat surveys good practice guidelines – 3rd edition. BCT, London.

Institution of Lighting Professionals and Bat Conservation Trust (2018) Guidance Note 08/18 Internal lighting should be recessed where installed in proximity to windows and blinds should be fitted to reduce glare and light spill. Institution of Lighting Professionals, Rugby.

Mitchell-Jones, A. J. (2004). Bat Mitigation Guidelines. Natural England/English Nature, Peterborough.

Mitchell-Jones, A. J. & McLeish, A. P. (2004). Bat Workers' Manual - 3RD Edition). JNCC, Peterborough.

Russ, J. (2012) British Bat Calls: A Guide to Species Identification. Pelagic Publishing.

Appendix 1: Wildlife checklist

Devon Wildlife Checklist (to be filled in by the ecological consultant and included in the front of the Wildlife Report)

A.1 Protected and priority species (relates to question 13a in the planning application form).

A tick or cross must be placed in all boxes in column two (shaded) and then, where there is a tick, all other boxes in that row. Where species are present please email this form to Devon Biodiversity Records Centre - DBRC@dbrc.org.uk.

Location: Stowford Down, Pound Land, Bickington Grid reference for centre of site (6 digits): SS 6043 2152

Planning Application reference: NA

Name of surveyor and consultancy John Polley Redstone Ecology Date that surveys carried out: February 2022

Sent to DBRC: No – no records to add to the existing data held by DBRC for this site

Species - terrestrial, intertidal, marine	Walkover shows that suitable habitat present and reasonably likely that the species will be found? Tick or cross	Detailed survey needed to clari impacts and mitigation requirements?	Detailed survey car out and included ?	Species Present or Assumed to be present on site Indicate with P or A and name the species	Impact on species?	Detailed Conservation Action Statem included? Sets out actions needed in relation to avoidance / mitigation / compensation / enhancement	NE Licenc required	Grid reference for specific location of species (if required for large sites)
Bats (roost)	X	As required	Walkover	BLE roost.	The proposed mitigation would maintain the 'favourable conservation status' of the bat species present on the site.	Yes	Yes	SX 72062 94777
Bats (flight li foraging habi	x	No						
Dormice	X							

Otters	X							
Great crested newts (*chec consultation zone)	x							
Cirl bun (*check consultation zone)	X							
Barn owls	x							
Other Schedu birds	x							
Breeding birc		No	No	Garage and bungalow provides nesting habitat	Low	Yes	No	
Reptiles	x							
Native crayfis	X							
Water voles	X							
Badgers	x							
Other prote species	X							
UK BAP pri species	x							
Devon BAP species	x							
Invasive spec	X							

Devon consultation zones for cirl buntings and great crested newts - http://www.devon.gov.uk/index/wildlife.htm
UK BAP priority species - http://jncc.defra.gov.uk/page-5717
Devon BAP key species - http://www.devon.gov.uk/dbap-section_e.pdf (note that this list is currently being updated)

A.2 Designations / important habitats / sites of geological importance (relates to questions 13 b & c in the planning application form)

Designation Terrestrial, intertidal, mar	Within sit potential impact. Tick or cros	Name of site / habitat	Detailed Conservation Action State included in rep	Habitat balance s included (sho area of habitats gained and overa gain)	Relevant organisa consulted & resp included in application?
Statutory designations					
European designations - Sp Area of Conservation (Special Protection Area (and RAMSAR site or w Greater Horseshoe consult zone	x				
Site of Special Scientific Int (SSSIs)	X				
Marine Conservation (MCZ)	X				
Local Nature Reserve (LNR)	X				
Non statutory wi designations					
County Wildlife Site (CWS)	X				
Ancient woodland	X				
Special Verge	X				
UK BAP Priority habitat	X				
Local Biodiversity Net (mapped by Devon Wi Trust / through G Infrastructure work)	X				
Non statutory geolo designation	X				
County Geological Site (CG RIGS)	X				

Appendix 2: Legislation

Legislative Context

A1.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

The Wildlife and Countryside Act (WCA) 1981 (as amended);
The Conservation of Habitats and Species Regulations 2010 (as amended);
The Countryside and Rights of Way (CRoW) Act 2000;
The Hedgerows Regulations 1997;
The Protection of Badgers Act 1992; and
The Natural Environment and Rural Communities Act (NERC) 2006.

A1.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2010 (as amended).

A1.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A1.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Species and Habitats of Principal Importance and the UK Biodiversity Action Plan

A1.5. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species and Habitats agreed under the UKBAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A Strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been succeeded, Species Action Plans (SAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.

A1.6. Priority Species and Habitats identified under the UKBAP are also referred to as Species and Habitats of Principal Importance for the conservation of biodiversity in England and Wales within Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

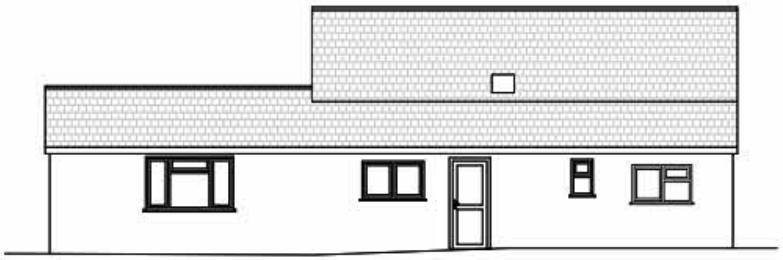
Appendix 3: Proposed Development Plan

FINAL - Option A

South Elevation

East Elevation

North Elevation



West Elevation

General Notes

All measurements are to be verified on site and checked against all physical boundaries.

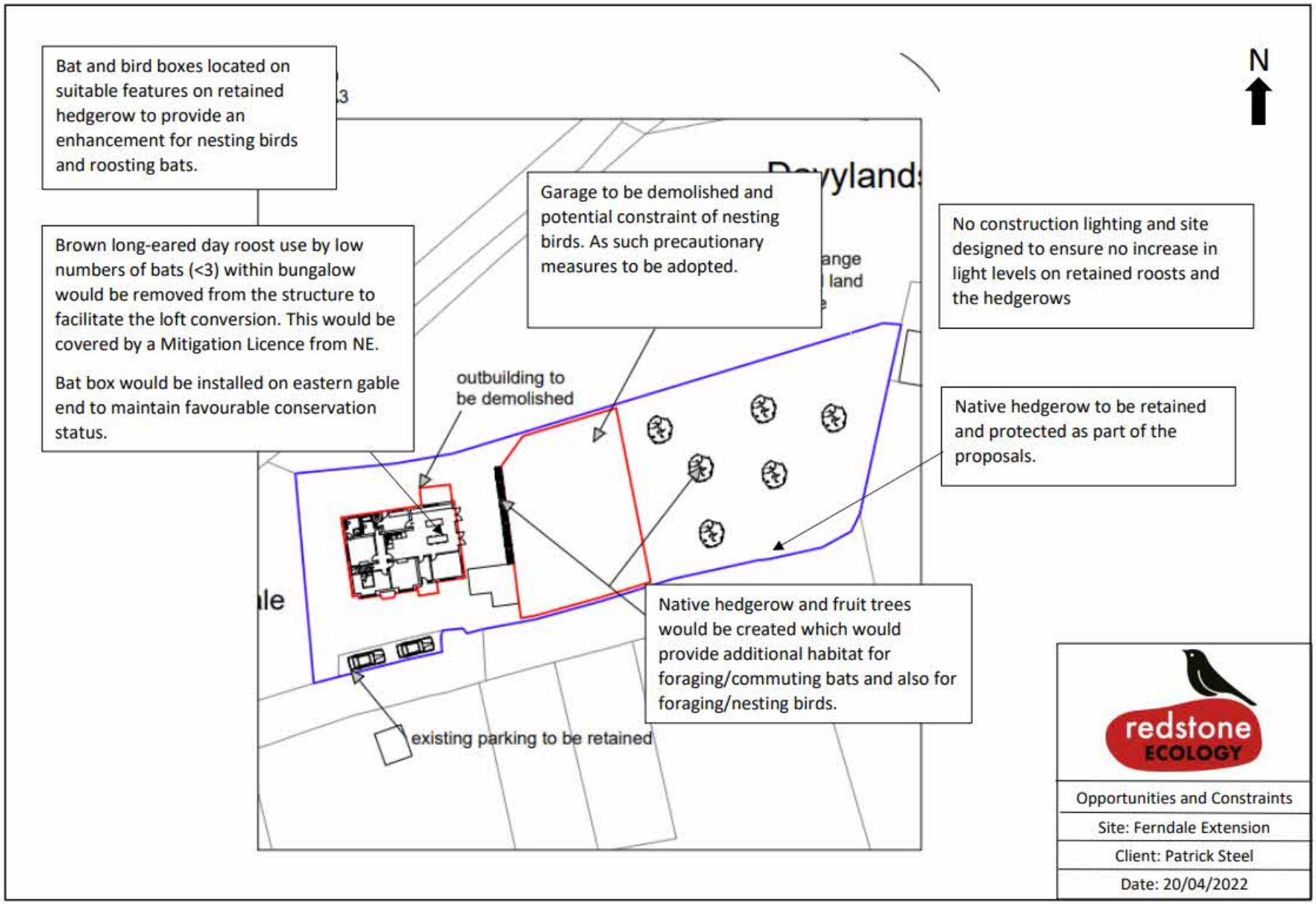
RT Designs
Russets
Tedburn St Mary
Nr Exeter
EX6 6AZ

Project Name and Address
Ferndale
Hittisleigh
Exeter
EX6 6LL

PSCP/310122
N/A
05/04/22
1:100 @ A3

FINAL
OPTION A
Elevations

Appendix 4: Ecological Constraints and Opportunities Plan


Bat and bird boxes located on suitable features on retained hedgerow to provide an enhancement for nesting birds and roosting bats.
Brown long-eared day roost use by low numbers of bats (<3) within bungalow would be removed from the structure to facilitate the loft conversion. This would be covered by a Mitigation Licence from NE.
Bat box would be installed on eastern gable end to maintain favourable conservation status.
Garage to be demolished and potential constraint of nesting birds. As such precautionary measures to be adopted.
No construction lighting and site designed to ensure no increase in light levels on retained roosts and the hedgerows
outbuilding to be demolished
Native hedgerow to be retained and protected as part of the proposals.
Native hedgerow and fruit trees would be created which would provide additional habitat for foraging/commuting bats and also for foraging/nesting birds.
existing parking to be retained
N
redstone ECOLOGY
Opportunities and Constraints
Site: Ferndale Extension
Client: Patrick Steel
Date: 20/04/2022