

Greenscape Environmental Ltd

RODENHURST

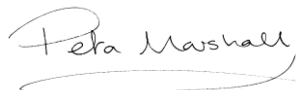
ECOLOGICAL APPRAISAL

**HOLLY BERRY FARM
KNOLTON
WREXHAM
LL13 0LF**

NOVEMBER 2017

1913 001R

Report by Ben Jones MSc

Report Classification:		Ecological Appraisal	
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	Name	Signature	Date
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The report should be read in its entirety.

Questions arising from the survey report should be directed to the author of this report who will be pleased to clarify any technical issues raised.

Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for one year for planning purposes after which time further survey information may be required.

Greenscape Environmental Ltd can provide advice and support for recommendations and planning conditions.

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1 Summary

1.1 Purpose of the Report

Greenscape Environmental Ltd was commissioned by Mr G Edwards of DPA on behalf of the clients, Mr and Mrs Rodenhurst, to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of ecological value as part of the planning application for a proposed development at Holly Berry Farm. The project involves the conversion of the garage to residential, with a small extension on one side.

This document outlines the potential impacts as ascertained from the preliminary ecological assessment, and recommends measures to avoid, reduce or manage negative effects.

1.2 Methodology

The appraisal of the site included a desktop survey of the area, and a phase 1 environmental appraisal. The phase 1 ecological appraisal was undertaken at the site, OS grid reference SJ36913974 on 15th November 2017 by B Jones.

1.3 Key Issues

One SSSI is found within the vicinity of the site, though no negative impact is expected from the development.

Records of protected species within 2km include typical bat species, water vole, otter and great crested newt (GCN).

The site comprises a garage alongside a vegetable patch and amenity grassland bordered with ornamental shrubs. There was no evidence of bats inside the building, and potential roost features were limited to a low number of slipped tiles with no significant void behind them, the void containing insulation. The building has very low potential for bats. No further survey is required, but the roof will be removed in the presence of an ecologist to ensure no bats are harmed.

There is evidence of birds gaining access, but not nesting inside the building. There is nesting potential in some of the vegetation outside, this will be removed outside of bird nesting season.

Seven ponds are within 250m, five of which were accessible for survey these were found to have low potential for GCN. Given the size of development and its location, no further survey for great crested newts is considered necessary.

1.4 Impacts and Mitigation Measures

It is recommended that the biodiversity is enhanced post construction with the inclusion of bat and bird boxes. The client has agreed to install one of each in a nearby tree. An ecologist will be on site when work is conducted on the roof.

1.5 Conclusions

It is considered the development can proceed without the loss of habitat of significant value and without the loss of favourable conservation status of any protected species. As there is no evidence of protected species within and around the development site, there is no requirement to address the three tests under Regulation 53 of the Conservation of Habitats and Species Regulations 2010). There are no ecological constraints to the development as proposed.

The method statements provided in this report will be followed, and works will be conducted at a suitable time of year to minimise negative impact on birds.

2 Introduction

This report has been compiled by Ben Jones BSc (hons) MSc who has 2 years' experience conducting ecological appraisals. It has been reviewed in line with Greenscape's Quality Management System.

Greenscape Environmental Ltd was commissioned by Mr G Edwards of DPA on behalf of the clients, Mr and Mrs Rodenhurst, to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of ecological value, as part of the planning application for the proposed works at Holly Berry Farm.

2.1 Project Background

The project involves the conversion of the garage to residential, potentially with a raised roof to create more vertical space. There is also a small extension planned on one face of the building.

2.2 Purpose of the Report

The aim of this survey is to locate and describe, as far as reasonably practicable, evidence of wildlife, including all protected and BAP species, which may be disturbed or lost in the event of development.

The purpose of the report is to:

1. Identify the key ecological constraints to the proposed development
2. Inform planning to allow significant ecological effects to be minimised or avoided wherever possible
3. Allow any necessary mitigation or compensation measures to be developed

2.3 Planning Policy and Legislation

The relevant planning policy and legislation to the current development is:

The Wildlife and Countryside Act 1981(as amended) – as listed in:

- Schedule 1. Birds protected by special penalties at all times
- Schedule 5. Protected animals
- Schedule 8. Protected plants

The Conservation of Habitats and Species (Amendment) Regulations 2010 – as listed in:

- Schedule 2. European protected species of animals
- Schedule 5. European protected species of plants

Countryside and Rights of Way Act (2000)

The Protection of Badgers Act 1992

Natural Environment and Rural Communities Act 2006 (NERC 2006)

Section 7 of the Environment Act (Wales) 2016

Wrexham Unitary Development Plan – EC6 Biodiversity Conservation

2.4 Details of Surveyors

Name	Membership of associations/ experience	Licenses
Peta Marshall BSc(hons)MA	MCIEEM PIEMA Peta has a degree in Applied Biology and has been working in commercial environmental assessment for over 10 years. She has 10+ years' experience surveying for protected species. As a member of the CIEEM she is bound by professional conduct.	Holder of survey licenses for bats and newts in England and Wales. Registered Consultant for Low Impact Class Licence for Bats England: 2015-12200-CLS-CLS Bats RC084 BLICL 2015-18939-CLS-CLS GCN Dormice-2017-29225-CLS-CLS Wales: Bats-77554:OTH:CSAB:2017 GCN-77574:OTH:SA:2017
Logan Maggs BSc(hons)	Lead Consultant Logan has a degree in Conservation and Land Management. He has 8 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales. He continues his personal development by attending courses on different species and survey methods.	Holder of survey licenses for bats and newts in England and Wales. England: Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS Wales: Bats - 75748:OTH:CSAB:2017 Newts - 75963:OTH:SA:2017
Ben Jones BSc(hons) MSc	Consultant Ben has a degree in Marine and Freshwater biology and a Master's degree in "Managing the Environment". He has 2 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. England: Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS Wales: Bats - 76324:OTH:CSAB:2017 GCN - 74760:OTH:SA:2017

2.5 Site Context and Location

The site is located in a rural environment south of Overton, OS grid reference SJ36913974. It is surrounded by open farmland and scattered dwellings. There is moderate connectivity to the surrounding countryside via field boundary hedgerows.

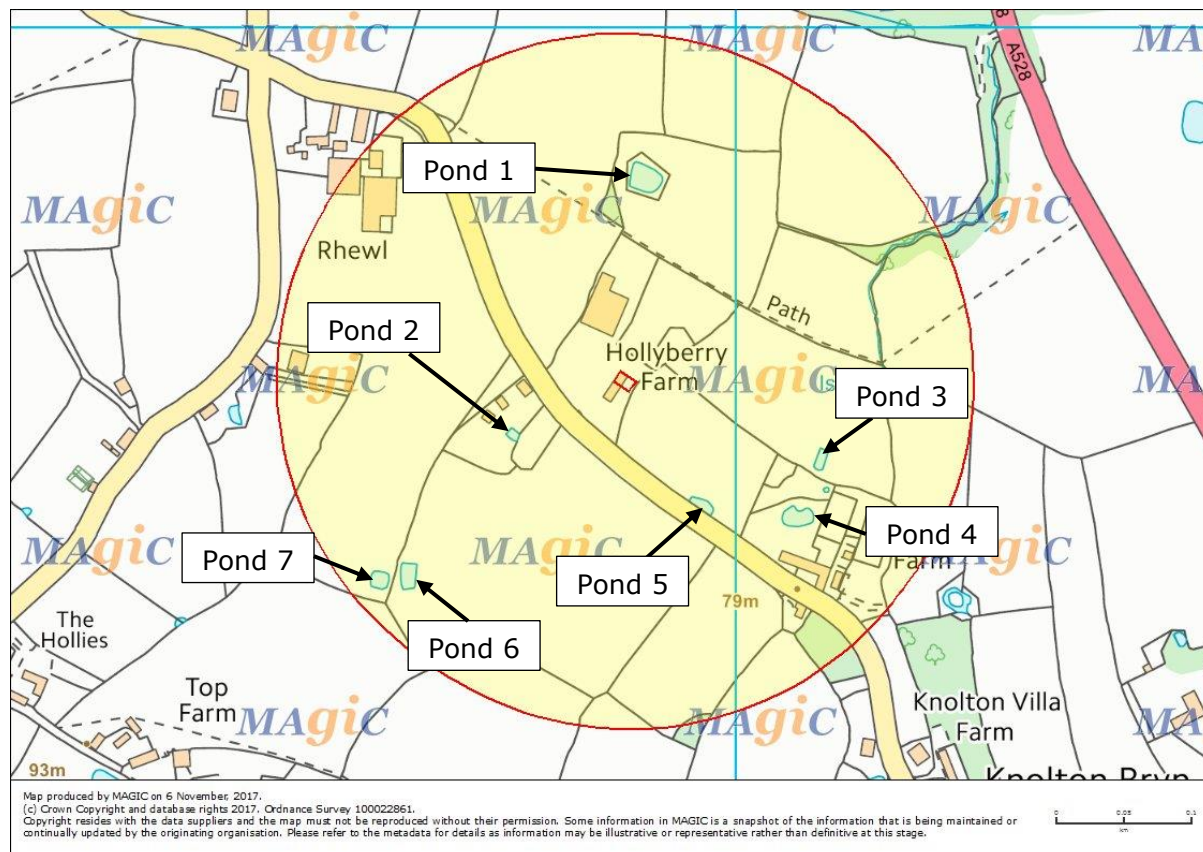


Figure 1. An OS map showing the site (centre, highlighted) with 250m buffer

2.5.1 Date and Survey Conditions

The phase 1 ecological appraisal was undertaken at the site on 15th November 2017 by B Jones BSc (hons) MSc. The conditions on the survey dates were optimal for the type of survey conducted.

Date	Time	Temp °C Start- Finish	Sunset / Sunrise	Condition
15/11/17	09:15	n/a	n/a	Overcast, light drizzle towards end of survey, cold

3 Methodology

3.1 Desk Study

The desk study provides contextual information such as the site's proximity to designated areas and known records of protected/notable species. This assists with the evaluation of the ecological value of the site.

Organisation/Resource	Information Assessed
Freely available online species datasets (NBN Atlas)	Statutory Designation (2km) Non-statutory designations (2km) Local Nature Reserves Protected/UK BAP Species records (2km)
MAGIC website	International statutory designations (1km) - Special Protection areas (SPA) - Special Areas of Conservation (SAC) - RAMSAR sites National statutory designations (1km) - Sites of Special Scientific Interest (SSSI) - National Nature Reserves (NNR) EPS Licenses for protected species (2km)
Local Records Centre	Protected/UK BAP Species records (2km)

The appraisal of the site included a desk study which took place in November 2017.

The National Biodiversity Network (NBN) Atlas was checked, and a full cross-border data search from Cofnod and SEDN was not considered proportionate to the size of the development. This would identify the protected species that have formerly been recorded in the area.

A search on Multi Agency Geographic Information for the Countryside (Magic Maps) determined nearby designated areas. The map is presented in Appendix A.

3.2 Field Survey

3.2.1 Habitats

An assessment of habitats was conducted following the "Extended Phase 1 Methodology" (Institute of Environmental Assessment 1995) and broadly the JNCC Handbook for Phase 1 Surveys 2010. Target notes were used to identify potential for protected or notable species or habitats, and to give more detailed site descriptions.

The level of survey is aimed to identify field signs of or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

3.3 Species Survey

3.3.1 Bats

The building was assessed for potential for bat roosts, foraging and commuting.

An external assessment of all structures on site was undertaken to determine potential roost features (PRF) The potential suitability of the structures assessed was assigned a rating of low to high in accordance with table 4.1 of Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

An internal assessment of all structures was undertaken by a Natural England/Natural resource Wales licensed surveyor for evidence of roosting bats such as droppings, feeding remains and staining.

Daytime surveys were conducted with the aid of a strong torch. Bat species may leave little evidence of their presence.

Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Faeces under a roof access point, a well-used feeding point or a resting spot.
- Feeding signs such as discarded insect wings under a feeding point.
- Lack of cobwebs around eaves, roof spaces, beams or ceilings where routes are kept clear by bats.
- Presence of roosting or dead bats in or behind any object.

All trees examined were categorised on their potential roost features. These features include cracks, splits in limbs, cavities, loose bark and thick stemmed ivy. Where appropriate these features were assessed using binoculars.

Methodology used is in accordance with recommendations by BCT, Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

3.3.2 Badgers

Surveys were conducted using guidance from Scottish Natural Heritage commissioned Report No 096 (2003).

Daytime surveys for badgers involved looking for:

- Scrapings where badgers have dug for food or used as latrines.
- Signs of a sett, including signs of use such as presence of badger hair
- Tracks and prints.

3.3.3 Birds

Evidence of nesting birds, including barn owls using a building, hedge or tree involved looking for:

- Presence of nests
- Collections of droppings and/or feathers
- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers

3.3.4 Amphibians and Reptiles

The assessment of aquatic habitat is based on the Habitat Suitability Index (HSI) and is applied according to guidance set out by the Oldham 2000, superseded by ARG in 2010, ARG UK Advice note 5. The HSI is a quantitative method of assessing the potential quality of a body of water in terms of its ability to sustain a population of great crested newts.

The terrestrial habitats at the application site were surveyed and assessed for their suitability and potential value for the support of GCN. The general topography, ground conditions and presence or absence of vegetation were recorded. A refugia search was conducted for amphibians and reptiles by looking under any logs, large stones and other debris.

3.4 Constraints of the Survey

Most areas were accessible for this survey. Two of the seven ponds were not accessible as the landowner was not present to allow entry onto the land. The survey was conducted at a suboptimal time of the year for the assessment of flora and fauna as maternity roosts of bats will have left for the year. This is not seen as a constraint due to the construction of the building to be converted. It was also conducted out of the optimal season for surveying for breeding great crested newts, but again, this is not seen as a constraint due to the terrestrial features close to the building not being of high value for newts.

4 Site Description

4.1 Desk Study

4.1.1 Designated Sites

The map from Natural England presented in Appendix A indicates that the site is within 1km of a designated area.

Type of Designation	Name of Site	Reason for Designation	Features	Distance & Direction
Statutory - SSSI	Shell Brook Pastures	Biological	Botanical interest	550m South

The nearest SSSI is approximately 550m south of the site. This is the Shell Brook Pastures SSSI and is a series of unimproved calcareous clay pastures supporting a rich range of plant life.

4.1.2 Records

A desk search was conducted focussing on the area within 2km of the site. The following species have official records in that area:

Bat species:

Common pipistrelle (*Pipistrellus pipistrellus*)
Brown long-eared (*Plecotus auritus*)

The nearest records are of brown long-eared bats at a site approximately 1.4km south of the site. The nearest common pipistrelle records available on NBN are 1.9km south.

Bat species data was provided to the NBN Atlas by the Shropshire Environmental Data Network (SEDN). Cofnod do not share their records with NBN Atlas, so this list of bat species may not be comprehensive for the 2km radius around site. This is not seen as a constraint as there is little potential for the development to have a cumulative impact on local bat species.

Other mammals:

Badgers (*Meles meles*)
Hare (*Lepus europaeus*)

Both badger and brown hare have records 1.8-2km from the site.

Other mammal data was provided to the NBN Atlas by the SEDN and the Atlas of Mammals.

Amphibians and Reptiles

Great Crested Newt (*Triturus cristatus*)

The only GCN record is 1.7km southwest of the site in 2013. No records of any other amphibian or reptiles are found in this area.

Amphibians and Reptiles data was provided to the NBN Atlas by SEDN.

Invasive species

Japanese knotweed (*Fallopia japonica*)
Himalayan balsam (*Impatiens glandulifera*)
American mink (*Neovison vison*)

The nearest records of Japanese Knotweed are historic records from SEDN, from 1977 and 1981.

Himalayan Balsam also has historic records in the area from 1981, but also one record from 2015, both over 1.8km from site.

American mink has been recorded within 2km but only historically, with two records from 1966 and 1967 provided by the Atlas of Mammals.

4.2 Field Survey-Phase 1 Description and Observations

The site comprises an annexed garage to the northeast of the main dwelling at Holly Berry Farm. It is surrounded by the dwelling to the southwest, and then by vegetable plots, amenity grassland and hardstanding. It is more broadly surrounded by open farmland.

The habitats on and around the site can be summarised as follows:

	Habitat	JNCC code
i.	Buildings	J3.6
ii.	Hard Standing	J4
iii.	Amenity grassland	J1.2
iv.	Cultivated/disturbed land	J1.3
v.	Improved grassland with heavy grazing	B4
vi.	Fence	J2.4
vii.	Intact Hedgerow	J2.1

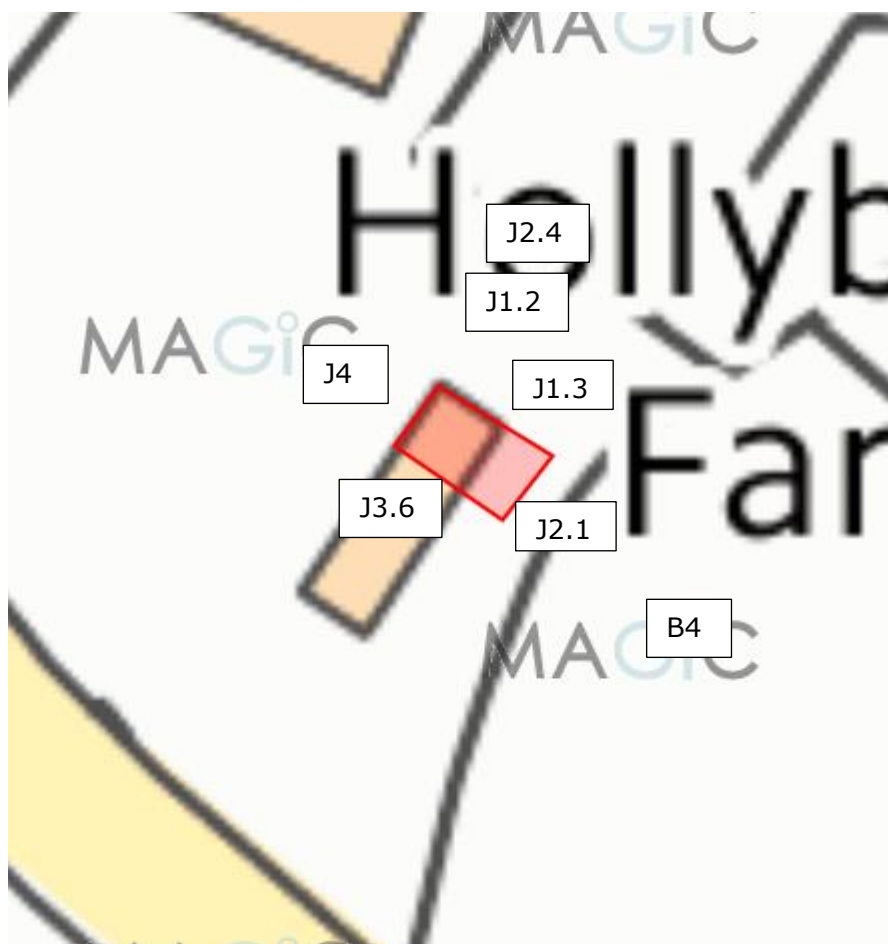


Figure 2. A map showing the JNCC phase 1 habitat classification codes for the site

4.2.1 Garage

The garage is a modern construction with red brick cavity walls. It is a single large room on the ground floor, with an upper floor occupying the roof space. The roof is slated with skylights. The roof is lined internally with foam insulation forming the ceiling of the upper floor. There is a lean-to attached to the northern side of the building, which is single-skin cladding with a metal roof. The lean to is planned for demolition as part of this development.



Figure 3. The garage

The upper floor of the main garage was assessed for evidence of bat species. The roof void is lined leaving little cavity between the slates and ceiling. No evidence such as droppings were found, suggesting bats have not occupied the loft space either to forage or roost. Additionally, there were no potential roost features found inside. The only timbers visible are modern and without the features which may be used by bat species.



Figure 4. Inside the first floor

Some of the objects stored inside this space had bird droppings on them, and discussions with the owner revealed that house martins have gained access in previous years, but not to nest. No evidence of nesting birds was found inside, supporting this. The roof lights allow significant lighting into the room.



Figure 5. Evidence of birds

The ground floor of the garage is a single room with no features that may be used by bats. This is a plastered room with no cavities and with a well fitting window. There was no evidence of nesting birds in this space, nor evidence of bird activity on any of the objects stored in the room.



Figure 6. Inside the ground floor

The slates on the roof are generally still well-set, but some have slipped and there are some gaps which may be suitable for bats. The lack of an interior void limits the potential of these gaps, and it is likely that if they are used at all, that they will be used by individual bats as a night or transitional roost between roosts of higher value.



Figure 7. Potential for individual bats

The soffits around the gable are all well sealed and no potential for bats was found.



Figure 8. No potential for bats

The lean-to is to be demolished as part of the development. No evidence of bats or birds was found inside, and no potential for either was found.



Figure 9. Inside the lean-to

4.2.2 Garden

Surrounding the garage is a garden with a mixture of amenity grassland, ornamental shrub planting and vegetable patch with greenhouses. It is over some of this area that the proposed extension will be built.



Figure 10. Area of proposed extension

The ornamental shrubs and the leylandii hedge are to be removed to make way for the proposed extension. It is understood that the leylandii was to be removed within days of the survey taking place to prevent nesting birds using it in Spring. The client was informed that leaving a stump was optimal, to avoid potential risk to any animals taking refuge amongst the roots. This was agreed to.

The grassland here is well-maintained and holds very low ecological value. The shrubs are considered to be too sparse and insubstantial to provide nesting bird habitat in the correct season, and so their only ecological benefit is potential foraging for some species. Their removal is unlikely to have any negative impact on local biodiversity. The area is considered highly unlikely to support great crested newts in the terrestrial phase.

To the north of the garage is a vegetable patch with two greenhouses. The vegetable plot was seen to be mainly cultivated bare earth and few plants growing, and so had no ecological value.

The greenhouses have no potential features for any protected species.



Figure 11. Cultivated land and greenhouses

4.2.3 Boundaries

The site is bounded from land to the east by an intact hedgerow. The hedgerow may be used by bats as a commuting and foraging route, although it is quite low, and potentially by nesting birds in the correct season. There are no plans to alter or remove this hedge as part of this development, and so no negative impact is expected.



Figure 12. Intact boundary hedge

4.2.4 Surrounds

The site is surrounded by open farmland, grazed by sheep at the time of survey. As such it is of low species diversity and is maintained to a short sward. No evidence of badger or any other protected species was found during the walk around these fields.



Figure 13. Neighbouring field

4.2.5 Open Water

Scrutiny of the OS map (Fig 1) and a walk around the locality showed there are seven ponds within 250m of the site, two of which were not accessible during the site visit (ponds 6 & 7). This is not seen as a constraint due to the distance from the site and separation with a road.

Each of these ponds was assessed using the Habitat Suitability Index (HSI) unless it was found to be dry or extinct, or unless access was not granted.

The results from the HSI calculations and justifications for each value can be seen in Appendix C, a summary is presented below.

Ponds			
Pond Number	OS Grid Reference	Distance from Site	HSI Score
1.	SJ36933989	140m	0.42 – Poor
2.	SJ36833969	90m	0.46 – Poor
3.	SJ39063968	155m	0.49 – Poor
4.	SJ37043963	160m	0.47 – Poor
5.	SJ36973964	110m	0.54 – Below Average
6.	SJ36753959	210m	n/a
7.	SJ36733959	225m	n/a

The consideration of the ponds and HSI scores indicates these ponds identified are considered to offer generally poor suitability for great crested newts. No further survey with respect to GCN is required.

The size of land to be lost for the proposed extension is extremely small, and so no further survey with respect to great crested newts is considered necessary. Work will take place under a reasonable avoidance measures method statement.

5 Evaluation of Results

5.1 Potential Impacts on Designated Sites and Recorded Species

5.1.1 Designated Areas

The nearest SSSI is approximately 550m away. This is the Shell Brook Pastures SSSI and is a series of unimproved calcareous clay pastures supporting a rich range of plant life.

Given the extremely small scale of external works planned and the distance to the site little to no impact is expected from this development.

5.2 Habitats on Site

Determination of Ecological Value is based on the general criteria provided by IEEM (IEEM 2006).

Ecological Value	Description and Examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance (e.g. Red Data Book species; European protected species).
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district (e.g. a viable area of a Priority Habitat on the county BAP or a site that supports a viable population of a county BAP species).
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species.

Habitat type	Is the habitat capable of supporting protected species	Impact without consideration
Hardstanding	Driveway	No negative impact
Buildings	Brick garage of low ecological value, some lifted and slipped roof tiles	No negative impact
Shrubs	Ornamental planting and hedge species where extension is proposed	No negative impact
Grassland	Amenity grassland around house	No negative impact
Cultivated land	Vegetable patch, no ecological value	No negative impact

5.2.1 Hedgerows

All hedgerows are potentially protected by the Hedgerow Regulations 1997. Under the regulations it is against the law to remove or destroy certain hedgerows without permission from the LPA. These Regulations do not apply to any hedgerow within the curtilage of, or marking the boundary of a dwelling house.

The area to be cleared in preparation for the extension contains several ornamental shrub species which offer little ecological value. There is a leylandii hedge (not protected by the

hedgerow regulations) which was due for removal within days of this survey taking place. It would provide nesting bird habitat in the correct season. After discussion with the client in person on 15th November, it was agreed that the stumps will be left. This will prevent there being an issue with nesting birds next season, but also avoid immediate disturbance of any animals taking refuge in the root systems.

There is an intact hedge separating the house and garden from the neighbouring fields, this will provide suitable nesting bird habitat, but none is planned for removal and no significant disturbance is expected.

5.3 Ecologically Important Species

Summary of status of protected species on site with recommendations

Species	Observations	Impact without consideration	Recommendations
Mammals			
Bats	Limited suitable roosting habitat on site, some slipped tiles on roof but no loft space	Low negative impact	No further survey required. Ecologist presence when roof removed. Site enhanced with roost box
Badgers	No evidence found around site	No negative impact	No action required
Water vole	No suitable habitat around site	No negative impact	No action required
Hazel Dormouse	No suitable habitat on site	No negative impact	No action required
Otter	No suitable habitat on site	No negative impact	No action required
Birds			
Barn Owl	No evidence in trees on site	No negative impact	No action required
Nesting birds	Some evidence of birds entering loft space. No nesting activity seen, current or historic Potential nesting habitat in intact hedgerow, no disturbance planned. Some potential in ornamental shrubs	No negative impact Low negative impact	No negative impact All clearance to be undertaken outside nesting period Feb-Aug inclusive. New nest box provision
Herpetofauna			
Reptiles	No suitable habitat around site	No negative impact	No action required
Great Crested Newts	Seven ponds around site, of the 5 assessed, 4 scored Poorly on HSI, the fifth scoring Below Average.	No negative impact	Clearance work conducted following reasonable avoidance measures.
Amphibian	No suitable habitat around site	No negative impact	No action required

5.3.1 Bats

All bat species are protected under the Conservation of Habitats and Species (Amendment) Regulations 2012 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- deliberately capture or kill any wild animal of a EPS;
- deliberately disturb any such animal;
- damage or destroy a breeding site or resting place of such a wild animal;

- keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a EPS, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both.

To allow a development that might result an offence, a derogation licence can be sought via the implementation of a European Protected Species Licence. This is provided by Natural Resources Wales (NRW).

Work can be conducted under derogation licence from NRW providing suitable compensation and mitigation is provided and the "three tests" can be met. These are:

1. Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety" or other imperative reason of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
2. Regulation 53(9)(a) States: the appropriate authority (Natural England) shall not grant a licence unless they are satisfied "that there is no satisfactory alternative"
3. Regulation 53(9)(b) states that the appropriate authority shall not grant a licence unless they are satisfied "that the action licensed will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in its natural range."

There is limited value in the garage building for bat species. The only value is the small crevices underneath slipped tiles. There is no loft space accessible from these crevices, however. It is thought that if any bats were going to use the building they would be individual bats using it as a night roost or a transitional roost between roosts of higher value. As such, it is not thought proportionate to the size of the development to conduct bat surveys, instead work will be conducted under a method statement with an ecologist present whilst work is conducted on the roof.

The site will also be enhanced with the inclusion of artificial roost boxes. The client has agreed to install one bat box on site as part of the development.

5.3.2 Other Mammals

Badgers

Badgers and their setts are specifically protected under the Protection of Badgers Act 1992. The act was primarily brought into force to prevent the deliberate injury to or death of badgers. Some aspects of the act affect developers. It is important that developers are aware of any badger setts located on the land they intend to develop.

All personnel working on sites where there are badgers should be aware of the Protection of Badgers Act 1992. Under this legislation it is an offence to:

- Damage a badger sett or any part of it.
- Destroy a badger sett.
- Obstruct access to, or any entrance of a badger sett.
- Causing a dog to enter a badger sett.
- Disturbing a badger when it is occupying a badger sett.

A badger sett is defined by the Act as “any structure or place, which displays signs indicating current (within the last 12 months) use by a badger”.

No evidence of badgers was found on or around site, no setts, latrines, foraging signs or prints were found. No further consideration is required.

5.3.3 Birds

Birds, their nests and young are all protected from damage during the breeding season in particular, under Section 1 of the Wildlife and Countryside Act 1981 (as amended). The Act allows for fines or prison sentences for every bird, egg or nest destroyed. It makes it an offence to:

- Intentionally kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built
- Take damage or destroy the egg of any wild bird
- To have in one's possession or control any wild bird, dead or alive or egg or any part of a wild bird or egg

There is evidence of birds gaining entry into the upper floor of the garage, but no evidence of nesting. There is also no evidence of nesting on the exterior of the building. The only potential habitat for nesting birds is the shrubs to be cleared to make space for the extension.

The removal of all shrubs will be conducted outside of bird nesting season and the site will be enhanced for nesting birds with the inclusion of an artificial nest box around site once developed. The client has agreed to install a box on a nearby tree.

Barn Owls

Barn owls are listed on Schedule 1 which gives them special protection.

It is an offence to:

- Intentionally kill, injure or handle any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'
- Intentionally take or destroy a wild barn owl egg
- Have in one's possession or control a wild barn owl (dead or alive) or egg (unless one can show it was obtained legally)
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young
- Intentionally or recklessly disturb any dependent young of wild barn owls.

It is not an offence to:

- Take a disabled wild barn owl solely for the purpose of tending it until fully recovered and then returning it to the wild
- Kill, injure, take or disturb barn owls if these were incidental results of a lawful operation and could not reasonably have been avoided

No evidence of, or habitat for, barn owls was found on or around the site. No negative impact is expected.

5.3.4 Amphibian and Reptiles

All species of amphibians receive a measure of protection under legislation.

The Wildlife and Countryside Act 1981 has been amended by the Countryside and Rights of Way Act (CROW) 2000. This applies to England and Wales only. The key relevant fact is:

- Section 9(4) is amended to create an additional offence of reckless damage to, destruction of, or obstruction of access to, any structure or place used for shelter or protection; and reckless disturbance while occupying such a structure or place.

This means that any application for planning permission has to offer mitigation to the planners to alleviate any potential damage (i.e. provide reasonable avoidance).

Great Crested Newts

GCN are protected under the Conservation of Habitats and Species Regulations 2010 (as amended) which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of an EPS
- Deliberately disturb any such animal
- Deliberately take or destroy eggs of any such wild animal
- Damage or destroy a breeding site or resting place of such a wild animal
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of an EPS, or any part of, or anything derived from such a wild animal or plant.

GCN are listed as a priority species on the UK Biodiversity Action Plan (BAP) and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine, or to both.

Work can be conducted under derogation licence from Natural Resources Wales providing suitable compensation and mitigation is provided and the "three tests" can be met. These are:

1. Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety" or other imperative reason of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.
2. Regulation 53(9)(a) States: the appropriate authority (Natural England) shall not grant a licence unless they are satisfied "that there is no satisfactory alternative"
3. Regulation 53(9)(b) states that the appropriate authority shall not grant a licence unless they are satisfied "that the action licensed will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in its natural range."

There are seven ponds within 250m, two of which were inaccessible for this survey. This is not considered problematic due to the extremely small size and generally low quality habitat to be lost as part of this development.

No further survey with regard to great crested newts is considered necessary, as they would not be proportionate to the size of the development, and even if newts were found, the same method statement would be applied.

The clearance of the small area of garden will be conducted in spring when newts are least likely to be in terrestrial habitat. As agreed with the client, any shrubs requiring removal will be cut to a stump over winter, and the root system later removed in spring.

6 Impacts and Mitigation Measures

To reduce or minimise negative impact on biodiversity, the following recommendations have been made. The client has agreed to install a bat and a bird box in a nearby tree as part of the development.

6.1 Bats

Work can be conducted immediately once planning permission has been granted without further need for bat surveys.

6.1.1 Working Method Statement

1. Works involving alterations of the roof will need to follow a rigid method statement.
2. The developer and contractors will be made aware that there is a possibility that bats may be found during works and will be advised to work in a way to ensure bats are not harmed during the soft demolition of the roof, and around gable wall. They will be provided with a simple emergency procedure to follow if bats are found at any stage of the work on site. It will be ensured the method statement is on site.
3. A pre-commencement check will be conducted by an ecologist once scaffolding is erected using a strong torch and borescope where appropriate.
4. The ecologist will be present on site when the roof is removed carefully by hand, particularly the ridges and around gables.
5. If a bat is found when the ecologist is not present then work will stop in that area IMMEDIATELY and the ecologist contacted for advice.
6. The bat can only be handled by the ecologist or authorised person unless it is in immediate danger. The bat must be carefully placed in a well ventilated lidded box with a small container (preferably a plastic bottle lid) with water in it. The container must be kept in a quiet and safe place.
7. The removal of the roof will not take place if the temperature has been below 4°C for 4 consecutive days and nights.

6.1.2 Enhancements for Bats

1. The client has agreed to provide roosting opportunities for bats with the erection of at least one Schwegler 3FF bat box in the nearby trees. This will be erected at a height of 3-4m and in a southerly, westerly or easterly facing direction.



Figure 14. Schwegler 3FF bat box

6.2 Birds

6.2.1 Reasonable Avoidance Measures

1. Any shrub removal will occur out of the bird nesting season, which is February to August inclusive. If this is not possible, a suitably experienced ecologist will conduct a check within 24 hours of work commencement to ensure no nesting birds will be affected.
2. All nesting birds will be left undisturbed until young have fledged. A 4m buffer will be left.

6.2.2 Enhancements for Birds

1. It is recommended that a range of artificial woodcrete boxes are erected around the site to provide an enhancement for passerine birds. A selection of the following nest boxes is recommended.



Cedarwood Sparrow Terrace



Schwegler 1b Bird Box

Figure 15: Provision for bird boxes

6.3 Newts

6.3.1 Reasonable Avoidance Measures

Pre-construction Phase

1. The site will be kept under cultivation prior to construction. This will reduce the potential for newts to cross the land and reduce the potential for the terrestrial features to improve. All plants will be kept short (<10cm) to ensure there is no shelter for GCN on the site.

Site set up

2. Soil and vegetation will be stripped to ensure the area contains no vegetation which could potentially attract GCN.
3. Contractors are advised not to handle newts at any time.

Construction phase

4. The Site Foreman will be responsible for ensuring all contractors are aware of the potential to find newts and that they are familiar with the appearance of newts. If in doubt the ecologist will be contacted.
5. Any plants around the development site will be kept short to stop the development of a long sward suitable for the terrestrial habitat for newts.
6. Removal of any unwanted plant roots will be conducted between February and May when there is least opportunity for newts to be hibernating in the roots.
7. All work will be conducted during daylight hours as newts are least likely to move during this time.
8. Trenches will be dug and filled in on the day created or will be covered over with close fitting boards at the end of each working day and checked the following morning. This is particularly important when newts are most active, between March and November.
9. If necessary, a ramp will be placed in trenches to allow newts and small mammals to escape.
10. Any heavy machinery will be stored on an area of hard standing to avoid refugia being created.
11. Stored material will be raised on pallets to reduce the potential they might act as a temporary resting place. This reduces the potential for damage or destruction of individual newts
12. All waste will be placed straight into skips to reduce the potential of creating refugia.
13. If a newt is found then work WILL stop immediately and the ecologist contacted for advice.
14. GCN will not be handled or moved without express permission from Natural Resources Wales as this would constitute an offence.

7 Concluding Remarks

The survey has focused on the potential of the site for bats, birds and newts.

The habitat for bats was limited to a few areas of the roof where tiles have slipped or broken, creating small crevices that might be used by individual bats. There was no evidence of bats within the building, and the crevices under the tiles do not lead to any significant spaces. No further surveys are required, but an ecologist will be present when work is conducted on the roof in case any individual bats are found.

Evidence was found inside the first floor of the garage of birds gaining entry, but no evidence was seen of historic nesting. Indeed, discussions with the client agree with the observation. There is some potential for nesting birds in shrubs to be cleared to make way for the extension. These shrubs will be cut to stumps outside of bird nesting season.

There are seven ponds within 250m of the site, five of which were accessible during the phase 1 survey. Four of these ponds scored as Poor on the HSI, while the fifth scored Below Average. No further survey for great crested newts is considered necessary as the area of land to be lost is extremely small, and the quality of the land is low for newts. The site will be cleared in such a way as to avoid risk to individual newts.

The method statements provided in this report will be followed, and works will be done at a suitable time of year. This will result in there being no further ecological constraints to the development.

Appendices

A Ordnance Survey Map Abstract

Sheet(s): 1

B Site Plan

Sheet(s): 1

C Pond HSIs

Sheet(s): 6

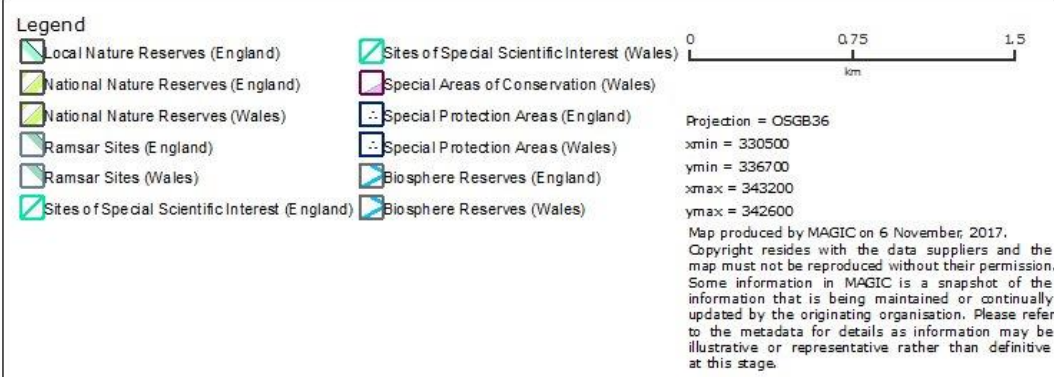
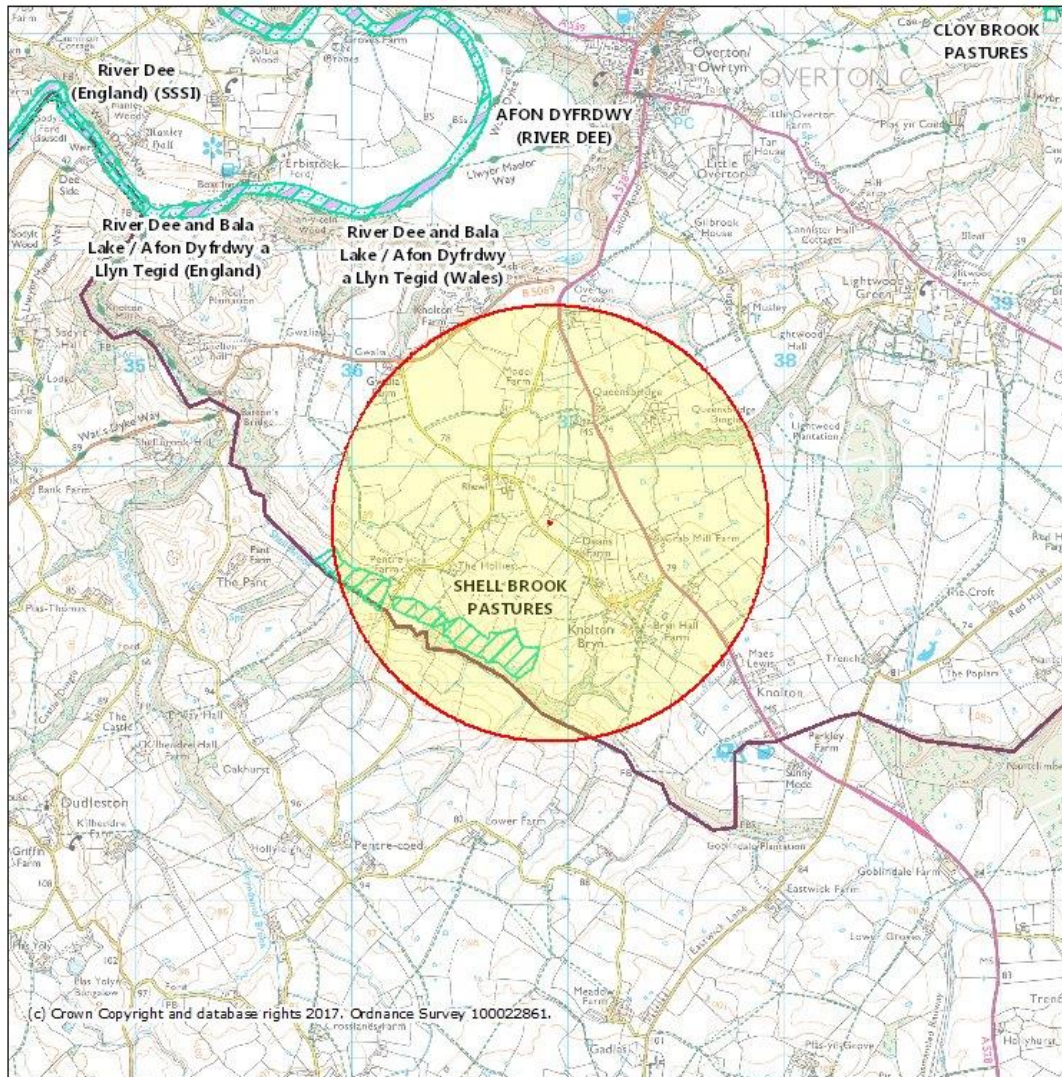
D Bibliography

Sheet(s): 1

A Environmental Map

MAGiC

Holly Berry Farm



An Environmental map for Holly Berry Farm taken from - Nature on the Map- Magic Maps

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DO NOT SCALE THIS DRAWING

IMPORTANT:
DRAWING TO BE READ IN
CONJUNCTION WITH STRUCTURAL
ENGINEER'S DRAWINGS &
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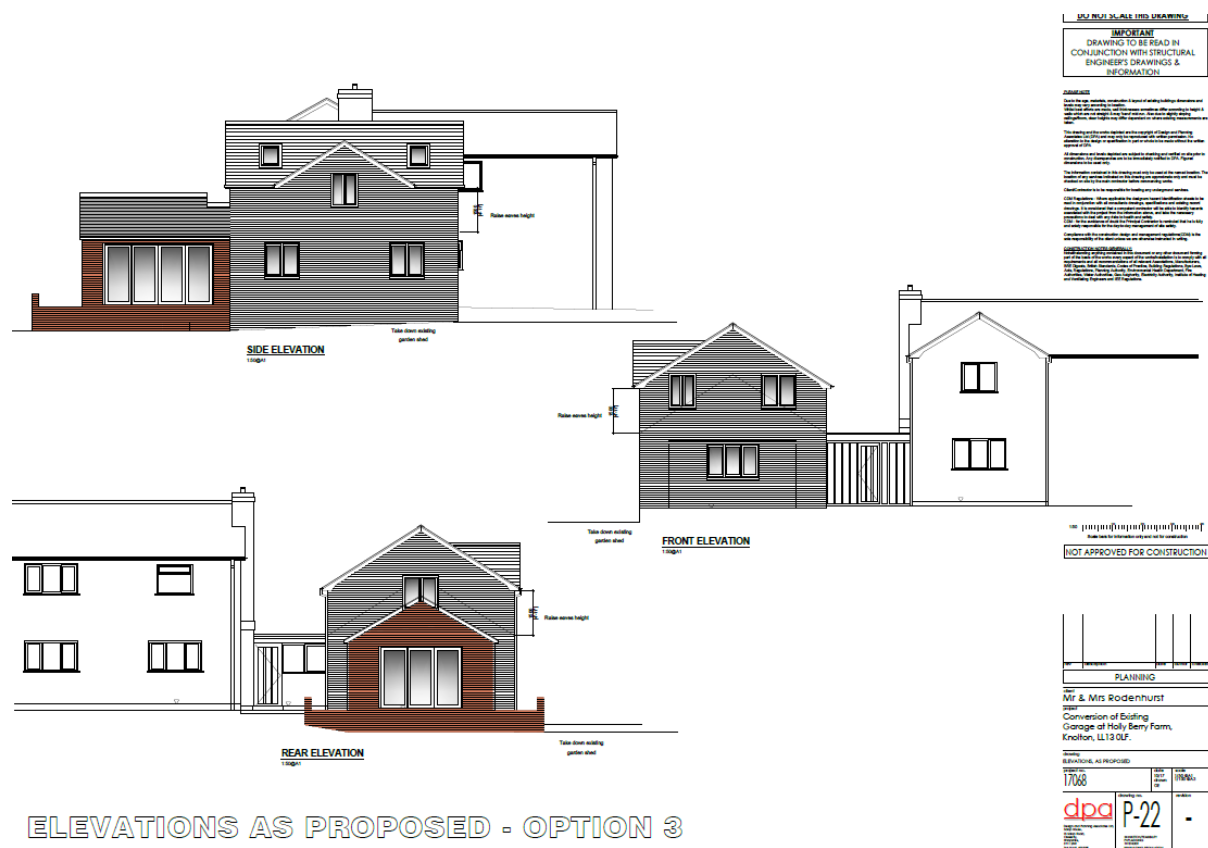
CONSENTS
This drawing has been prepared in accordance with the provisions of the Planning (Listed Buildings and Conservation Areas) Act 1990 and the Planning (Listed Buildings and Conservation Areas) Regulations 2001. It is a condition of any consent granted that the works shall be carried out in accordance with the provisions of the Act and the Regulations.

NOTES
1. The drawing is for the proposed works to the building and is not a structural drawing. It is a condition of any consent granted that the works shall be carried out in accordance with the provisions of the Act and the Regulations.
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PLANNING
Mr & Mrs Rodenhurst
Conversion of Existing
Garage at Holly Berry Farm,
Enkton, W13 0LP.

BLOCK PLAN

Block plan



C Pond HSIs

Pond 1

This is a man-made pond which has become naturalised, though it is topped up with roof water from the dwelling at Holly Berry Farm.

Pond 1 Grid reference: SJ36933989		
Geographic Location	1	Zone A
Pond Area	0.67	The pond was approximately 340m ²
Permanence	0.9	Never dries
Water Quality	0.33	Low invertebrate diversity, few submerged plants
Shade	1	There was estimated to be 0-60% shading of the area within 1m of the perimeter
Waterfowl	0.01	Several ducks were observed on the pond and there was little or no evidence of submerged plants
Fish	0.67	No evidence of fish but local conditions suggest they may be present
Pond Count	1	There were over 20 ponds within a 1km radius.
Terrestrial Habitat	0.33	The pond sits within a grazed field. The only good terrestrial land within 250m is field margin hedgerows
Macrophytes	0.35	There was very little floating or emergent vegetation in this pond, cover was estimated to be 10%
HSI Score	0.42 - Poor	



Pond 2

Pond 2 is a garden pond, it is very small and with a damaged liner meaning the water level is very low at all times. It is very choked with plant material with no open water suitable for breeding purposes.

Pond 2 Grid reference: SJ36833969		
Geographic Location	1	Zone A
Pond Area	0.05	The pond was approximately 5m ²
Permanence	0.5	The pond dries out 3/10 to most years.
Water Quality	0.33	Low invertebrate diversity due to low water levels
Shade	0.2	The pond was 100% shaded by nearby trees
Waterfowl	1	No waterfowl was seen on the pond and no fowl would use this pond
Fish	1	No evidence of fish and not thought possible for fish to survive in this pond
Pond Count	1	There were over 20 ponds within a 1km radius.
Terrestrial Habitat	0.33	The pond sits within a hardstanding patio area, surrounded by grazed fields. The only good terrestrial land within 250m is field margin hedgerows
Macrophytes	0.8	The pond was completely overgrown with vegetation, cover was 100%
HSI Score	0.46 - Poor	



Pond 3

Pond 3 is a small overgrown pond within a grazed field. It has low water levels and shows signs of pollution, likely due to enrichment from grazing animals.

Pond 3 Grid reference: SJ39063968		
Geographic Location	1	Zone A
Pond Area	0.05	The pond was no more than 30m ²
Permanence	0.5	The pond dries 3/10 to most years
Water Quality	0.33	Low invertebrate diversity
Shade	0.6	There was estimated to be 50% shading of the area within 1m of the perimeter
Waterfowl	0.67	Ducks were observed flying over the pond and it is possible they may land occasionally
Fish	1	No evidence of fish and local conditions suggest they will not be present
Pond Count	1	There were over 20 ponds within a 1km radius.
Terrestrial Habitat	0.33	The pond sits within a grazed field. The only good terrestrial land within 250m is field margin hedgerows
Macrophytes	0.8	There was approximately 50% cover of floating or emergent vegetation in this pond
HSI Score	0.49 - Poor	



Pond 4

Pond 4 is a garden pond which had very high numbers of invertebrates, but only moderate diversity. Several ducks were seen on the pond and indeed a duck house is present on the water.

Pond 4 Grid reference: SJ37043963		
Geographic Location	1	Zone A
Pond Area	0.5	The pond was approximately 245m ²
Permanence	0.9	The pond does not dry out
Water Quality	0.67	Moderate invertebrate diversity
Shade	1	There was estimated to be 50% shading of the area within 1m of the perimeter
Waterfowl	0.01	Several ducks were observed on the pond with significant impacts seen
Fish	0.67	No evidence of fish, pond has history of stocking, owner thinks there may be some carp still, but is unsure
Pond Count	1	There were over 20 ponds within a 1km radius.
Terrestrial Habitat	0.33	The pond sits within a garden, surrounded by hardstanding, buildings or grazed fields. The only good terrestrial land within 250m is field margin hedgerows
Macrophytes	0.8	There was approximately 50% cover of floating or emergent vegetation in this pond
HSI Score	0.49 - Poor	



Pond 5

Pond 5 Grid reference: SJ36973964		
Geographic Location	1	Zone A
Pond Area	0.2	The pond was approximately 100m ²
Permanence	0.5	The pond dries 3/10 to most years
Water Quality	0.33	Low invertebrate diversity
Shade	1	There was estimated to be 0-60% shading of the area within 1m of the perimeter
Waterfowl	0.67	Ducks were observed flying over the pond and it is possible they may land occasionally
Fish	1	No evidence of fish and local conditions suggest they will not be present
Pond Count	1	There were over 20 ponds within a 1km radius.
Terrestrial Habitat	0.33	The pond sits within a grazed field. The only good terrestrial land within 250m is field margin hedgerows
Macrophytes	0.3	There was no observable floating or emergent vegetation in this pond
HSI Score	0.54 – Below Average	



Ponds 6 & 7

These two ponds were not accessible at the time of survey as the landowner was not present to allow entry onto the land. The ponds are separated from the development site by grazed fields of low quality for newts. It appears that there is habitat of higher value near the ponds themselves.



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