

Lowans Ecology & Associates

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**Ecological Impact Assessment (EclA) for
land at Braeside House, 49 Bishopstoke Road, Bishopstoke,
Hampshire SO50 6BF**

Prepared for: Mrs J Bray Braeside House, 49 Bishopstoke Road, Bishopstoke, Hampshire SO50 6BF

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1 Executive summary

Survey date: 11/08/2022
Grid reference: SU 46430 19209

Protected sites:

The north and west boundaries of the site lie adjacent to the River Itchen Special Areas of Conservation (SAC) and Site of Special Scientific Interest (SSSI). The site lies within the Impact Risk Zones for these sites. The LPA should therefore consult Natural England on the likely risks that the application may have on the protected sites.

Data search:

Hampshire Biological Information Centre (HBIC) hold no records for the site. The following records are held within a 1km radius of the site. Amphibians, reptiles, birds, fish, higher plants (conifers, flowering plants), invertebrates (araneae, coleoptera, crustacea, diptera, ephemeroptera, hymenoptera, lepidoptera, mollusca, odonata, orthoptera) and mammals (bats, water vole, hedgehog, otter, harvest mouse).

Habitats:

The proposed application site comprises of a detached garage set in 0.05ha of gravel driveway and lawn, maintained as short sward. The west boundary of the site is lined with beech *Fagus sylvatica*, sycamore *Acer pseudoplatanus* and hawthorn *Crataegus monogyna* trees. Trees T3, T4, T5, T6, T8, T13, and T15 have Tree Preservation Orders.

Bats:

The garage has no potential to be used by bats. The site falls within the Zone of Influence of the SSSI, SAC and known bat roosts within a 1km radius of the site. Although trees (T1 to T8 and T12 to T15) have PRF's no evidence of bats were found. Preventative mitigation measures and enhancements will be required to ensure no adverse effects/long-term impact on bats due to this development.

Nesting birds:

HBIC hold no records for the site. Records are held for 77 species of bird within a 1km radius of the site. No evidence of nesting birds were found within or on the garage. The trees have the potential to be used by nesting birds. Preventative mitigation measures and enhancements will be required to ensure no adverse effects/long-term impact on nesting due to this development.

Badger:

HBIC hold no records for the site or within a 1km radius of the site. No evidence of badger was found within the site. Badger are considered absent from the site, there will be no adverse impacts on badger, due to the proposed development.

Reptiles:

HBIC hold no records for the site. Records of slow worm *Anguis fragilis*, recorded between 2005 and 2014 and grass snake *Natrix helvetica* 2003 and 2007 are held within a 1km radius of the site. The site comprises of an area of gravel driveway and lawn, maintained as short sward, providing a sub-optimal habitat for reptiles. Reptiles are considered absent from the site, there will be no adverse impacts on reptiles due to the proposed development.

Amphibians:

HBIC hold no records for the site. Records of common toad *Bufo bufo*, recorded between 2007 and 2009, are held within a 1km radius of the site. MAGIC, OS and Google maps show three ponds within a 500 metre radius of the site at 215m southwest, 325m northeast and 330m north. There are no ponds within the application site. The site comprises of an area of gravel driveway and lawn, maintained as short sward, providing a sub-optimal habitat for amphibians. The proposed construction will not create a barrier to movement of amphibians. There will be no impact on amphibians due to the proposed construction. Preventative mitigation measures will be required to ensure no adverse effects/long-term impact on amphibians due to this development.

Dormice:

HBIC hold no records for the site or within a 1km radius of the site. There is no suitable habitat within the site for dormice. Dormice are considered absent from the site, there will be no adverse impact on dormice, due to the proposed development.

Otter:

HBIC hold no records for the site. Records of otter are held within a 1km radius of the site, recorded between 1996 and 2015. No evidence of otter was found along the river bank. Preventative mitigation measures will be required to ensure no adverse effects/long-term impact on otter due to this development.

Water vole:

HBIC hold no records for the site. Records of water vole are held within a 1km radius of the site, recorded between 1983 and 2015. The east bank of the river is formed naturally, with shallow banking sides. The bank on the west side is lined with concrete. No evidence of water vole was found, along the river bank. Preventative mitigation measures will be required to ensure no adverse effects/long-term impact on water vole due to this development.

Mitigation/Enhancements:

The recommendations in section 6 will be conditioned as part of the planning application and will be adhered to.

Surveyor:

Louise Lowans (Natural England Licences: Bat 2015-16733-CLS-CLS. Barn Owl CL29/00005. Dormouse 2016-21322-CLS-CLS.

2 Introduction

2.1 Background

Lowans Ecology & Associates were commissioned by Mrs Bray to survey the site prior to the proposed planning application.

2.2 Field survey

The aim of the ecology survey (extended Phase 1) was to confirm the presence/absence of; any protected/notable plant or animal species, any suitable habitats for protected species, such as bats, badgers, reptiles, nesting birds, amphibians, barn owl, dormouse and/or any protected habitats on the site and provide mitigation and/or enhancement as appropriate.

The site was assessed for species and/or habitats protected by the Wildlife and Countryside Act 1981 (as amended), The Protection of Badgers Act 1996, The Hedgerow Regulations Act 2007, The CROW Act 2000 and the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019. Species and habitats of principal importance and general biodiversity interest of the site (Natural Environment and Rural Communities Act 2006) were also considered. Surveys were carried out following all relevant guidelines (refer to Section 7 References).

Local Planning Authorities are required to take into account nature conservation issues, incl. species and habitats protected under the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 and The Wildlife and Countryside Act 1981 (as amended) when making planning decisions. Local Planning Authorities also aim to conserve and enhance biodiversity (National Policy Planning Framework 2019 (NPPF)) and to have regard to conserving biodiversity, which includes restoring and enhancing a population or habitat under the Natural Environment and Communities Act 2006 (NERC 2006)).

The remit of the ecologist is to recommend a course of action that; a) protects the interest of the European Protected Species and other protected species, b) protects the owners and their agents from committing an offence under the legislation and is the best course of action for primarily the welfare of the protected species, but with some regard to the implementation of the owners' project.

2.3 Report

The aim of the report is to clearly set out the results of the survey, highlighting any effects of the proposed development on any protected species or habitats suitable for protected species on or adjacent to the site and provide mitigation and/or enhancement as appropriate.

2.4 Site location

The site is situated within Bishopstoke, OS Grid Reference SU 46430 19209. Appendix A - Plan 1.

2.5 Site description

The site comprises a detached house and garage set in 0.115ha of garden and gravel driveway.

The proposed application site comprises of the detached garage and 0.05 ha of garden and gravel driveway. The north boundary is lined with a post and wire fence. The east and south boundaries are open. The west boundary is formed by the Itchen Navigation and is lined with trees.

The north and west boundaries lies adjacent to the River Itchen Special Areas of Conservation (SAC) and Site of Special Scientific Interest (SSSI). In addition, the north boundary lies adjacent to deciduous woodland Priority Habitat. The east boundary lies adjacent to the garden of Braeside House and the neighbouring properties. The south boundary lies adjacent to Bishopstoke Road and River Itchen SSSI. Appendix A - Plan 1. Appendix B - Figures 1 to 7.

Garage

The single garage is constructed of brick. It has a hipped concrete tiled roof. It is accessed via a single wooden door on the east elevation and an 'up and over' door on the south elevation. It has wooden soffits. The garage is open to the ridge there is no loft space.

2.6 Description of proposal

It is proposed to apply for full planning permission to remove the garage and build a two storey detached house. Appendix A - Plans 2 and 3.

All of the trees will be retained, accept T26 (Cypress), trees T3, T4, T5, T6, T7, T13 (all beech) and T15 (horse chestnut) will be reduced, as detailed in the Arboricultural impact appraisal and method statement by L. Fraser Barrel Tree Consultancy 12/08/2022.

3 Method

3.1 Desk study

3.1.1 Protected and other notable sites

The location was checked for habitats protected under the Wildlife and Countryside Act 1981 (as amended), and other habitats that could be County Wildlife sites or Biodiversity Action Plan habitats using the Multi-Agency Geographic Information for the Countryside (MAGIC) Defra website.

3.1.2 Data search

A 1km data search was requested from Hampshire Biological Information Centre.

3.1.3 Zone of Influence

The study area encompassed the Zone of Influence of the project. The Zone of Influence is defined as "... the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities" (CIEEM, 2018).

The Zone of Influence of the project encompasses different areas in respect of each important ecological feature depending on its location and sensitivity, and the spatial extent of the relevant biophysical change (e.g. light, noise, habitat loss).

However, the majority of the activities and resultant biophysical changes are unlikely to have an effect beyond the site and the immediate surrounding area. The exceptions to this include birds and bats due to their highly mobile nature, potentially 5-7km for birds and up to 6km for bats (based on Bat Conservation Trust Core Sustenance Zones, 2020), and activities such as uncontrolled discharges of pollutants, changes to ground and surface water drainage, air pollution and the increased demand for recreational activities when the site is occupied, which might extend beyond the immediate surroundings of the site in some instances; for the majority of designated sites in the area this is up to 5km.

Therefore, the Zone of Influence, and the study area, is broadly considered to extend across the site or just beyond the site boundary in most cases and potentially up to or exceeding 5km with regards to designated

3.2 Date of survey

The date and time of the survey were recorded.

3.3 Weather conditions

The weather conditions were recorded.

3.4 Limitations of survey

Limitations that may affect the overall survey result were recorded.

3.5 Survey scope

This report includes surveys for the wildlife detailed below (as habitats were not present, or were not deemed suitable, for other species):

Survey Scope: habitats, bats, nesting birds, badgers, reptiles, amphibians, dormice, otter and water vole

3.5.1 Habitats

The site was surveyed for important vegetation communities such as unimproved grassland, ancient woodland or hedges (that might be protected under the Hedgerow Regulations Act) and water features.

Hedgerow Regulations

Hedges were surveyed for features cited in the Hedgerow Regulations Act, namely features such as up to 7 woody species, presence of woodland plants, a ditch, bank, links to other hedges etc.

3.5.2 Bats

3.5.2.1 Daytime building survey

A daytime survey of the site was carried out, it investigated the status of bats by assessing the building's suitability for bat roosts and places of rest for bats.

This was achieved by:

Checking external walls, soffits, roof coverings, internal spaces, lofts, beams, ledges, window sills, floors, holes and cavities etc. that display use by bats - regular use is demonstrated by staining, droppings and worn surfaces.

3.5.2.2 Daytime survey trees

The trees within the development area were assessed for potential roost features (PRF's). PRF's that may be used by bats include: woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks and splits (such as frosting cracks) in stems or branches, partially detached platey bark, knot holes arising from naturally shed branches or branches previously pruned back to the branch collar, man made holes or cavities created by branches tearing out from parent stems, cankers (caused by localised bark death) in which cavities have developed, other hollows or cavities including butt-rots, double leaders forming compression forks with included bark and potential cavities, gaps between overlapping stems and branches, partially detached ivy with stem diameters in excess of 50mm, bat, bird or dormice boxes.

3.5.3 Nesting birds

The site was surveyed for signs of nests of swallows, house sparrows and other birds as building works should not conflict with bird breeding seasons.

3.5.4 Badger

The site was searched for the following signs of badger *Meles meles*: tracks, hair on fences, feeding holes, latrines, scratching posts and setts.

3.5.5 Reptiles

The site was assessed for its potential to support fully protected reptiles and common reptiles, positive features being open undisturbed habitats, sandy banks, tall sward grassland and permanent scrubby areas.

3.5.6 Amphibians

The site was assessed for ponds and ditches that could be used by amphibians. Ponds within a 500m radius of site were assessed using the great crested newt Habitat Suitability Index (HSI) developed by Oldham et al (2000).

3.5.7 Dormouse

The site was assessed for its potential to support hazel dormouse *Muscardinus avellanarius*.

3.5.8 Otter

The site was searched for the following signs of otter *Lutra lutra*: spraint, footprints, slides up and down banksides, feeding remains, holts and couches.

3.5.9 Water vole

The site was searched for signs of water vole *Arvicola amphibius*: faeces, latrines, feeding stations, burrows, footprints and runs. The survey techniques employed were based on the methodology detailed in Dean, M., Strachan, R., Glow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook.

3.6 Field equipment

Equipment available for use during the survey included. Maglite (LED bulb) torch, ladders, Snap-On endoscope, binoculars, compass, notebook, pen, chest waders, Echo Meter Touch Pro, Wildlife Acoustics Song Meter Mini Bat detectors, rayTEC VAR2i81 Long Range InfraRed Illuminator lights and Panasonic HC-VXF990 4K Camcorders. Kaleidoscope software was used to analyse the data recorded on the bat detectors. The videos were reviewed using QuickTime Player and VLC Media Player. Kaleidoscope software was used to analyse the data recorded on the bat detectors.

3.7 Details of surveyor

Louise Lowans BSc. (Hons), MCIEEM. Director and Principal Ecologist of Lowans Ecology & Associates. Ecologist for over 20 years. Natural England Licences held Bat Licence 2015-16733-CLS-CLS. Dormouse 2016-21322-CLS-CLS. Barn Owl CL29/00005.

4 Results and discussion

4.1 Protected and other notable sites

The north and west boundaries of the site lie adjacent to the River Itchen Special Areas of Conservation (SAC) and Site of Special Scientific Interest (SSSI). The site lies within the Impact Risk Zones for these sites. The LPA should therefore consult Natural England on the likely risks that the application may have on the protected sites.

The site lies within a 2km radius of the following protected sites:-

- Coastal and floodplain grazing marsh Priority Habitat
- Good quality semi-improved grassland Priority Habitat
- Lowland meadows Priority Habitat
- Purple moor grass and rush pastures Priority Habitat
- Lowland fens Priority Habitat
- Reedbeds Priority Habitat
- Deciduous woodland Priority Habitat
- Traditional orchard Priority Habitat

4.1.2 Data search

Hampshire Biological Information Centre (HBIC) hold no records for the site. The following records are held within a 1km radius of the site. Amphibians, reptiles, birds, fish, higher plants (conifers, flowering plants), invertebrates (araneae, coleoptera, crustacea, diptera, ephemeroptera, hymenoptera, lepidoptera, mollusca, odonata, orthoptera) and mammals (bats, water vole, hedgehog, otter, harvest mouse).

4.2 Date of survey

11/08/2022 at 12.00 hours.

4.3 Weather conditions

The weather conditions were dry with no cloud cover. The air temperature was 30°C. The wind measured 3 on the Beaufort scale.

4.4 Limitations of survey

There were no limitations to the survey.

4.5 Survey scope

4.5.1 Habitats

The proposed application site comprises of the detached garage and 0.05 ha of gravel driveway and lawn, maintained as short sward. The west boundary of the site is lined with beech *Fagus sylvatica*, sycamore *Acer pseudoplatanus* and hawthorn *Crataegus monogyna* trees. Trees T3, T4, T5, T6, T8, T13, and T15 have Tree Preservation Orders.

4.5.2 Bats

4.5.2.1 Daytime building survey

HBIC hold no records for the site. The following records (roosts and field records) are held within a 1km radius of the site:-

Serotine *Eptesicus serotinus* recorded between 1997 and 2018
Daubenton's *Myotis daubentonii* recorded between 1997 and 2015
Whiskered *Myotis mystacinus* recorded between 1999 and 2002
Whiskered/Brandt's *Myotis mystacinus/brandtii* recorded in 2004
Noctule *Nyctalus noctula* recorded between 2010 and 2018
Pipistrelle sp. *Pipistrellus* sp. recorded between 1986 and 2018
Common pipistrelle *Pipistrellus pipistrellus* recorded between 2010 and 2019
Soprano pipistrelle *Pipistrellus pygmaeus* recorded between 2010 and 2018
Long-eared sp. *Plecotus* sp., recorded in 2012 and 2018
Brown long-eared *Plecotus auritus* recorded between 1986 and 2005

Garage

The garage has relatively high levels of natural light from the window on the northwest elevation. There is no loft space. The main ridge beam is covered in very thick cobwebs. There were no gaps between the rafters or holes in the internal brick work that could be used by crevice dwelling bats. No live or dead bats, feeding remains, staining or bat droppings were found within the garage. Externally, there are no missing or raised tiles on the roof. There are no holes in the soffits or gaps between the soffits and external walls. Appendix B - Figure 8 to 13.

4.5.2.2 Daytime survey trees

All of the trees will be retained, except T26 (Cypress), trees T3, T4, T5, T6, T8, T13 (all beech) and T15 (horse chestnut) will be reduced, as detailed in the Arboricultural impact appraisal and method statement by L. Fraser Barrel Tree Consultancy 12/08/2022.

T1 (Horse chestnut) Large stem cavity on southeast side of tree at 1m and several open cavities in the upper canopy. Tree will be retained.

T2 (Beech) Deadwood. Tree will be retained.

T3 (Beech) Stem decay at base, storm damage, significant stem decay and hollowing of upper stem on west side of tree. Crown will be reduced.

T4 (Beech) Stem cavity south side of tree at 0.5m south. Co-dominant stems at 5 m with significant decay in both stems. Crown will be reduced.

T5 (Beech) Significant stem decay. Crown will be reduced.

T6 (Beech) Significant stem decay from base up to about 8 m. Crown will be reduced.

T7 (Beech) Small stem cavity on north side of tree at 10m north. No work proposed.

T8 (Beech) Large stem cavity on north side of tree at 8m, with bees' nest. Crown will be reduced.

T12 (Beech) Localised stem decay. No work proposed.

T13 (Beech) Fungal fruiting bodies and weeping cavities on main stem. Crown will be reduced.

T14 (Oak) Deadwood. Will be retained.

T15 (Horse chestnut) Basal decay and hollowing up to 3m. Crown will be reduced.

No signs of staining was evident around the openings of the cavities and no bat droppings were stuck to the bark. No evidence of bats (bat droppings, staining, live or dead bats) were found.

4.5.2.3 Interpretation of survey results

- The garage has no potential to be used by bats.
- The site falls within the Zone of Influence of the SSSI, SAC and known bat roosts within a 1km radius of the site.
- Although trees (T1 to T8 and T12 to T15) have PRF's no evidence of bats were found.

Preventative mitigation measures and enhancements will be required to ensure no adverse effects/long-term impact on bats due to this development.

4.5.3 Nesting birds

HBIC hold no records for the site. Records are held for 77 species of bird within a 1km radius of the site. Appendix C - Table 1.

No evidence of nesting birds were found within or on the garage. The trees have the potential to be used by nesting birds. Preventative mitigation measures and enhancements will be required to ensure no adverse effects/long-term impact on nesting due to this development.

4.5.4 Badger

HBIC hold no records for the site or within a 1km radius of the site. No evidence of badger was found within the site. Badger are considered absent from the site, there will be no adverse impacts on badger, due to the proposed development.

4.5.5 Reptiles

HBIC hold no records for the site. The following records are held within a 1km radius of the site:- Slow worm *Anguis fragilis*, recorded between 2005 and 2014 and grass snake *Natrix helvetica* 2003 and 2007.

The site comprises of an area of gravel driveway and lawn, maintained as short sward, providing a sub-optimal habitat for reptiles. Reptiles are considered absent from the site, there will be no adverse impacts on reptiles due to the proposed development.

4.5.6 Amphibians

HBIC hold no records for the site. Records of common toad *Bufo bufo*, recorded between 2007 and 2009, are held within a 1km radius of the site.

MAGIC, OS and Google maps show three ponds within a 500 metre radius of the site at 215m southwest, 325m northeast and 330m north. There are no ponds within the application site. The site comprises of lawn maintained as short sward and an area of gravel driveway, providing a sub-optimal habitat for amphibians. The proposed construction will not create a barrier to movement of amphibians. There will be no impact on amphibians due to the proposed construction.

Preventative mitigation measures will be required to ensure no adverse effects/long-term impact on amphibians due to this development.

4.5.7 Dormouse

HBIC hold no records for the site or within a 1km radius of the site. There is no suitable habitat within the site for dormice. Dormice are considered absent from the site, there will be no adverse impact of dormice, due to the proposed development.

4.5.8 Otter

HBIC hold no records for the site. Records of otter are held within a 1km radius of the site, recorded between 1996 and 2015. No evidence of otter was found along the river bank.

Preventative mitigation measures will be required to ensure no adverse effects/long-term impact on otter due to this development.

4.5.9 Water vole

HBIC hold no records for the site. Records of water vole are held within a 1km radius of the site, recorded between 1983 and 2015. The east bank of the river is formed naturally, with shallow banking sides. The bank on the west side is lined with concrete. No evidence of water vole was found, along the river bank. Appendix B - Figures 14.

Preventative mitigation measures will be required to ensure no adverse effects/long-term impact on water vole due to this development.

5 Legislation

5.1 Bats

Bats and their places of rest are fully protected under UK and European Law. Within the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019, it is stated that it is illegal to intentionally damage, destroy or obstruct access to any place that a bat uses for shelter, including during the process of a development, unless a Natural England European Protected Species Licence (EPSL) has been granted.

Advice from Natural England is that a licence **is** needed if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is **reasonably likely** to result in an offence under Regulation 41; or

If the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is **reasonably unlikely** to result in an offence under Regulation 41 then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If they are found then work should cease and an application be made to Natural England.

Regulation 41 states that

- (1) A person commits an offence if he—
 - (a) deliberately captures, injures or kills any wild animal of a European protected species,
 - (b) deliberately disturbs wild animals of any such species,
 - (c) deliberately takes or destroys the eggs of such an animal, or
 - (d) damages or destroys a breeding site or resting place of such an animal,

For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely—

- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate

or migrate;

or

- (b) to affect significantly the local distribution or abundance of the species to

which they belong.

- (2) It is an offence for any person—
 - (a) to be in possession of, or to control,
 - (b) to transport,
 - (c) to sell or exchange, or
 - (d) to offer for sale or exchange.

5.2 Nesting birds

All birds, their nest and eggs are protected by the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird. It is an offence to intentionally take, damage or destroy the eggs, young or nest whilst it is being built or in use or prevent parent birds access to their nests.

5.3 Badgers

Badgers are protected under the Protection of Badgers Act 1992. It is illegal to: willfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so; to intentionally or recklessly interfere with a badger sett by damaging or destroying it; to obstruct access, or any entrance of, a badger sett and to disturb a badger when it is occupying a sett.

5.4 Reptiles

Reptiles are protected under Schedule 2 of the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 and Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended).

5.5 Amphibians

Great Crested Newt *Triturus cristatus* and Natterjack Toad *Bufo calamita*

The Great Crested Newt and Natterjack Toad and their respective habitats are fully protected under Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981 (as amended) and under the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019. It is illegal to kill, injure, capture, handle or disturb them, and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed. They are both UK Biodiversity Action Plan priority species.

Great crested newts are also protected by the Protection of Animals Act 1911 and under the Abandonment of Animals Act 1960.

Common amphibians

The more common British amphibians, i.e. common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *Lissotriton helveticus* are protected only by Section 9(5) of the Wildlife and Countryside Act 1981. This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy, and is not relevant to this situation.

Common toad is now a UK Biodiversity Action Plan Priority Species and Species of Principle Importance in England (Section 41 of the Natural Environmental and Rural Communities Act 2006 (NERC)).

5.6 Dormice

Dormice are fully-protected against killing, capture, injury and disturbance, and their habitats are protected against damage, destruction or obstruction, under the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended). Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess, or sell a wild dormouse.

5.7 Otter

Otter are protected under Schedule 2 of the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 and Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended)

5.8 Water vole

Water voles have legal protection under Schedule 5 (Section 9) of the Wildlife and Countryside Act 1981 (as amended). This includes; intentional or reckless damage, destruction or obstruction to access to any structure or place used for shelter or protection, intentional or reckless disturbance to water voles whilst occupying a structure or place used for that purpose and intentional killing, injuring or taking of water voles.

5.9 Western European Hedgehog

The hedgehog is a Priority Species for conservation action under the UK Biodiversity Action Plan and protected from harm in the UK under Schedule 6 of the Wildlife and Countryside Act 1981 and the NERC Act 2006, the hedgehog is categorised as a 'Species of Principal Importance' for biodiversity.

6 Recommendations, precautionary mitigation measures and enhancements

National Planning Policy Framework sets out national planning policies on the protection of biodiversity and geological conservation. Circular 06/05 (DEFRA 01/05): Biodiversity and Geological Conservation: Statutory Obligations and Their Impact within The Planning System provides administrative guidance on application of the law in England relating to planning and nature conservation.

The following recommendations will be conditioned as part of the planning application and will be adhered to.

6.1 Bats

1. There are no timing constraints to when the proposed work to the garage is carried out. If at any time during the course of the building work, bats are found, then work must stop by law and the consultant ecologist Louise Lowans (07983 664173) contacted for advice.
2. As an enhancement to the site an integrated bat box will be built into the south elevation of the proposed dwelling. Appendix A - Plan 4.
3. PRO UK Build-in WoodStone Bat Box or Vivara Pro Build-in Woodstone Bat Tube or Bat Block Appendix B - Figures 15 and 16.
4. No security lighting will be placed above or below the bat tube/brick. Any security lighting will be low level and will be on timers so that the level of light pollution is kept to a minimum.
5. The site falls within the Zone of Influence of the SSSI, SAC and known bat roosts within a 1km radius of the site. The north and west boundaries of the site have the potential to be used by commuting and foraging bats the lighting used within the development will therefore adhere to the following: a) lighting will be directed to where it is needed through the design of the luminaire and by using accessories such as cowls or hoods, the boundaries and trees will not be lit, b) lights will not be on constantly throughout the night creating dark periods to allow bats to continue foraging without light spill affecting them, c) the lighting scheme will adhere to the latest guidance, as detailed in Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the built environment series, Bat Conservation Trust (London) & Institution of Lighting Professionals (Rugby) (2018).

Trees - Reduction of crowns

1. The work to the trees will be carried out between September and February only (so as to avoid nesting birds).
2. All trees that are to be crowned will be checked for bats prior to removal, this will include a visual inspection.
3. Cracks, splits and holes will not be cut through.
4. If bats are found when the trained bat ecologist is not on site, then work must stop (by Law) and the consultant ecologist informed 07983 664173.
5. If an injured or underweight bat is found the Bat Conservation Trust will be contacted on 0845 1300 228 for details of the nearest bat care worker.

6.2 Nesting birds

1. Vegetation will be cut back between 1st September and 28th February, so as to avoid the bird nesting season.
2. As an enhancement to the site 2 x swift boxes (that are also suitable for sparrows and starlings) will be built into the east elevation of the proposed dwelling. Ideally the boxes will be at least 5 metres above the ground (a lower elevation is acceptable), with a clear flight path to the entrance. Appendix A - Plan 4.
3. WoodStone Build-in Swift Nest Box B Appendix A - Figure 17.

6.3 Badgers

1. If badgers or signs are badgers are found during the proposed development work. Work in the local vicinity will stop and Lowans Ecology and Associates (07983 664173) contacted immediately for advice.

6.4 Reptiles

1. Vegetation (lawn) within the site will be maintained as short sward up (less than 10cm) until and during the proposed work.
2. If reptiles are found during the proposed development work. Work in the local vicinity will stop and Lowans Ecology and Associates (07983 664173) contacted immediately for advice.

6.5 Amphibians

1. Vegetation (lawn) within the site will be maintained as short sward up (less than 10cm) until and during the proposed work.
2. If trenches are to be left open overnight, ramps of less than 45 degrees will be put in the trenches so that amphibians can climb out should they fall in.
3. Any areas that could possibly create a temporary waterbody will be back filled (having been checked for the presence of newts).
4. If amphibians are found during the proposed development work. Work in the local vicinity will stop and Lowans Ecology and Associates (07983 664173) contacted immediately for advice.

6.6 Bees

1. As an enhancement to the site 2 x bee bricks will be built into the south elevation of the proposed extension. The bricks will be at least a metre high with no vegetation in front of them. Appendix A - Plan 4.
2. Bee bricks Appendix A - Figure 18.

6.7 Otter

1. No evidence of otter was found within the site, however HBIC hold records of otter within a 1km radius of the site. Prior to commencement of any construction work on site, the site will be checked by the ecologist for the presence of otter.
2. If trenches are to be left open overnight, ramps of less than 45 degrees will be put in the trenches so that otter can climb out should they fall in.
3. If otter or signs of otter are found during the proposed development work. Work in the local vicinity will stop and Lowans Ecology and Associates (07983 664173) contacted immediately for advice.

6.8 Water vole

1. No evidence of water vole was found within the site, however HBIC hold records of water vole within a 1km radius of the site. Prior to commencement of any construction work on site, the site will be checked by the ecologist for the presence of water vole.
2. If water vole are found to be presence a European Protected Species licence for the intentional disturbance of water voles and damage or destruction of water vole burrows by means of displacement - to facilitate development activities will be required prior to the commencement of construction work.

6.9 Western European Hedgehog

1. HBIC hold records of hedgehogs within a 1km radius of the site. Hedgehogs can roam between 1 to 2km each night during their active season. It is therefore critical that they can access a wide range of gardens. If the proposed garden is to be fenced a 13cm by 13cm gap will be left at the base of each fence to allow hedgehogs to pass through the garden. Appendix A - Figure 19.

6.10 River Itchen SAC and SSSI

1. Working Methodology - This method statement is to be implemented in full throughout the construction period in order to protect the adjacent River Itchen SAC and SSSI from any damage, e.g. materials/spoil falling into the river, machinery/materials eroding the river bank, run-off, etc.
2. As work will be within 8m of the river permission will be obtained from the Environment Agency.
3. No water or other resources are to be taken from the river or river bank.
4. A plank will be put into any foundations at night, in the unlikely event that any wildlife, investigates the site at night.

5. **Work on site** - The ecologist is to be informed when work commences on site and when work is completed on site. Photographic evidence of methods employed below, to protect the River Itchen will be required. The ecologist may need to visit the site to ensure protective measures are in place.
6. **Toolbox talk** - The site manager is to inform all operatives on site that the north and west boundaries of the site lie adjacent to the River Itchen Special Areas of Conservation (SAC) and Site of Special Scientific Interest (SSSI) and as such is protected by law.
7. **Protective fence** - Prior to any work commencing on site, a barrier fence and straw bale bund is to be constructed at least 1m from the river bank on the north and west sides of the site for the entirety of the project. Appendix A - Plan 5. This will act as a barrier to, and a 'filter' for, any run-off from the site. The fencing is to be at least 500mm in height and extend beneath ground level at least 100mm, using posts. The material used will be capable of withstanding a moderate and predicted worst-case scenario spill from an on-site liquid container facility. Advice will be sought from Barrell Tree Consultancy during construction of the fencing, with regard to the tree roots.
8. **Damage to protective fence** - Any damage to the protective fencing will be repaired to ensure its effectiveness in the manner prescribed. Care will be used when stacking materials close to the barrier fence, as items may fall and damage the fence. High stacking of materials close to the fence will be avoided where possible, and done in such manner as to be stable against wind and accidental disturbance by vehicle movement.
9. **Construction materials** - All construction materials are to be stored away from the watercourse. This includes, sand and gravel which will be contained in lifting sacks to prevent accidental spillage or run-off, cement and plaster will be stored in lidded containers and not be left lying loose anywhere on site.
10. **Pollutants** - No off-loaded or pumping of any potential pollutant will be undertaken within 5m of the river bank, at any time. No washing or cleaning will occur within 5m of the river bank, including toilets and other staff facilities.
11. **Items to be removed from site** - Materials stripped out of the building, incl. demolition material, unwanted items, spoil arising from the development, loose rubbish, used liquid containers, wood materials, etc., will be put immediately into a skip, or vehicle, for removal from the site. They will not be placed on the ground. The reason being that any material that may have been treated with insecticide or fungicide at some time may produce a residue on exposure to rainwater, causing leaching into the soil.
12. **Foundations** - Carrying out building foundation and/or formation of any slab will not be undertaken in conditions where concrete has to be poured in wet weather conditions, nor in the event that the site were to be considered unduly wet. This will minimise any risk of leaching of concrete run-off.
13. **Bare earth** - Exposed bare earth will be mounded and prevented from entering the water course and coming into contact with the protective fencing.
14. **Vehicles** - No vehicles or machinery are to be within 5m of the river bank.
15. **Noise** - Noise can be a significant factor in wildlife disturbance (i.e. birds, otters, water voles that are present on the River Itchen), therefore steps will be taken to reduce noise of large/noisy vehicles where possible, which run in the area near to the boundary fence.
16. **Lighting** - no lights are to be permanently on at night. To avoid indirect impacts on the SAC & SSSI and species that may use these features.
17. **Working hours** - Works will be restricted to daylight hours, and a maximum of 12 hours per day, with works ceasing at least 30 minutes before sunset and commencing at least 30 minutes after sunrise. This measure will ensure the lowest or zero potential risk to nocturnal wildlife.

6.11 Further survey work

1. No further surveys are recommended. However if the proposed work is not carried out within 18 months or the proposed plans change a follow up ecological survey maybe required, the ecologist will be contacted for advice.
2. Photographic evidence of the enhancements will be emailed to the ecologist. The photographs will be sent to the County Ecologist for post monitoring purposes and to the Local Planning Authority for them to sign off the planning conditions.

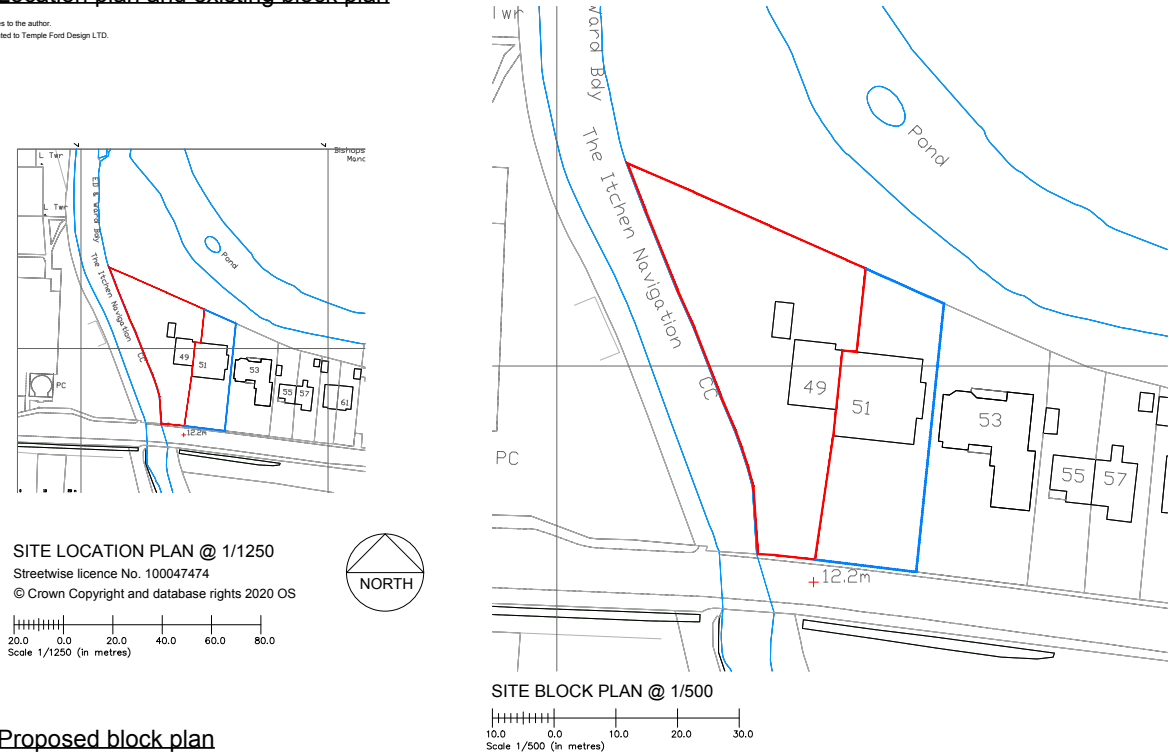
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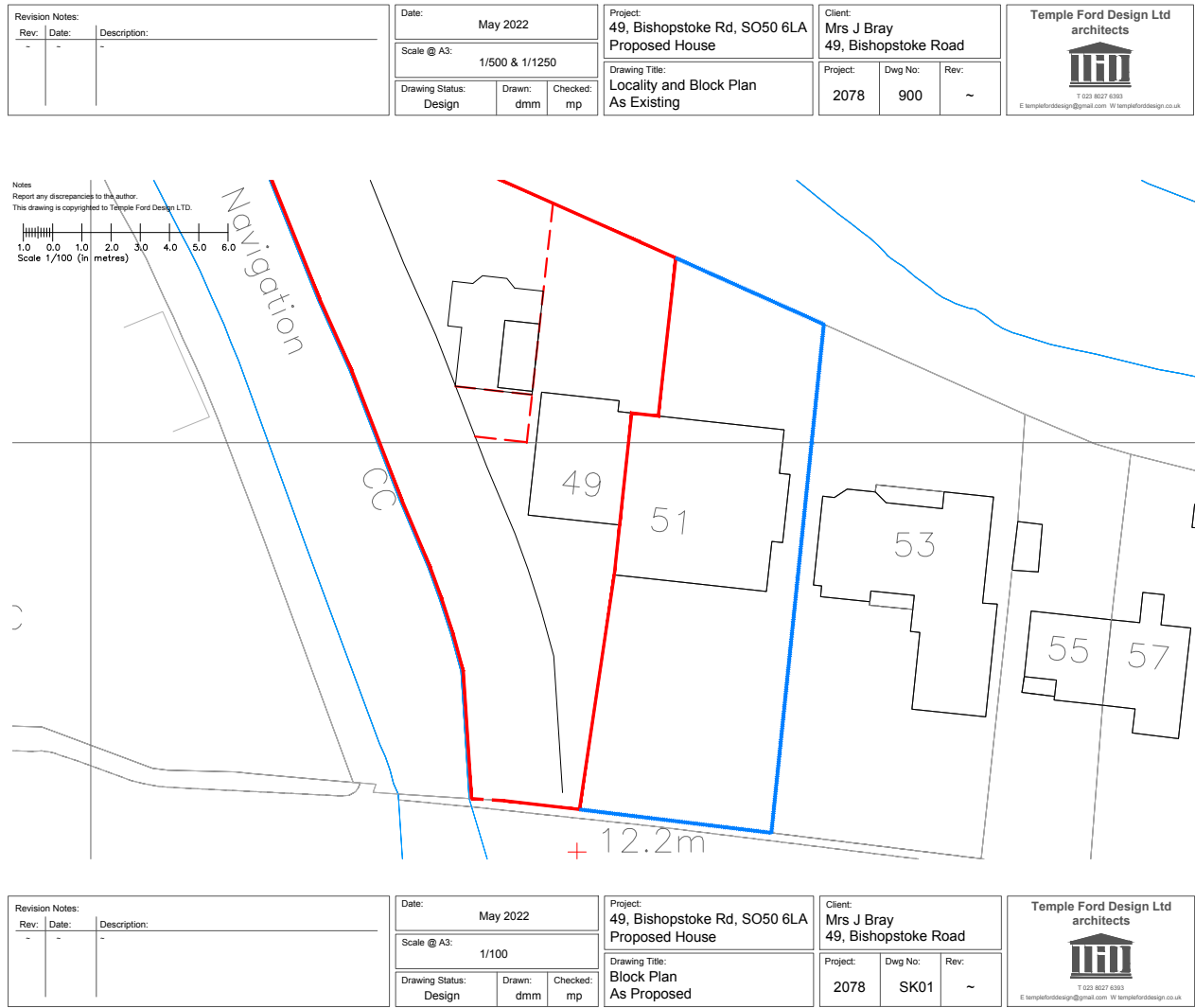
8 Appendices
8.1 Appendix A - Plans

Plan 1 - Location plan and existing block plan

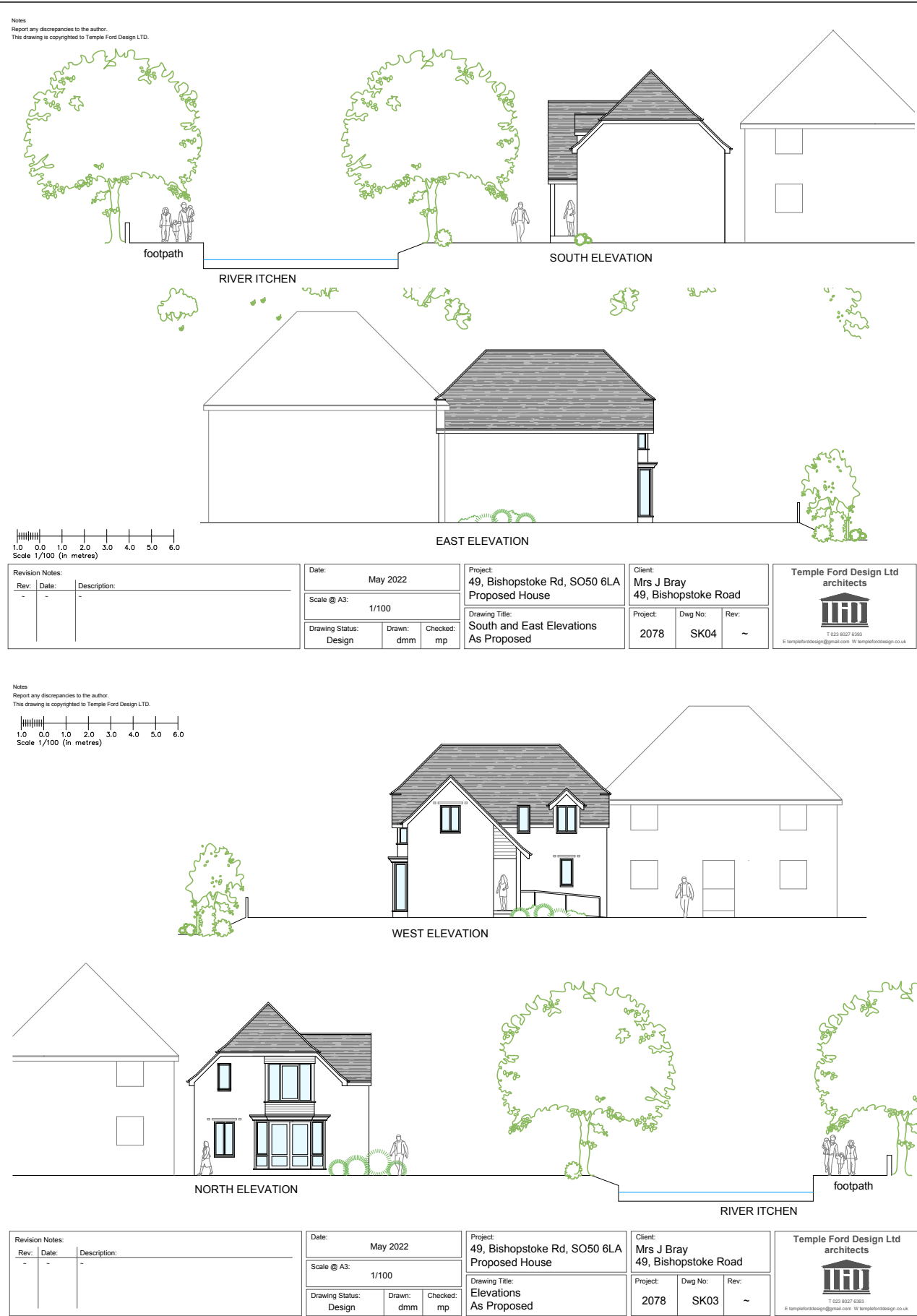
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Plan 2 - Proposed block plan

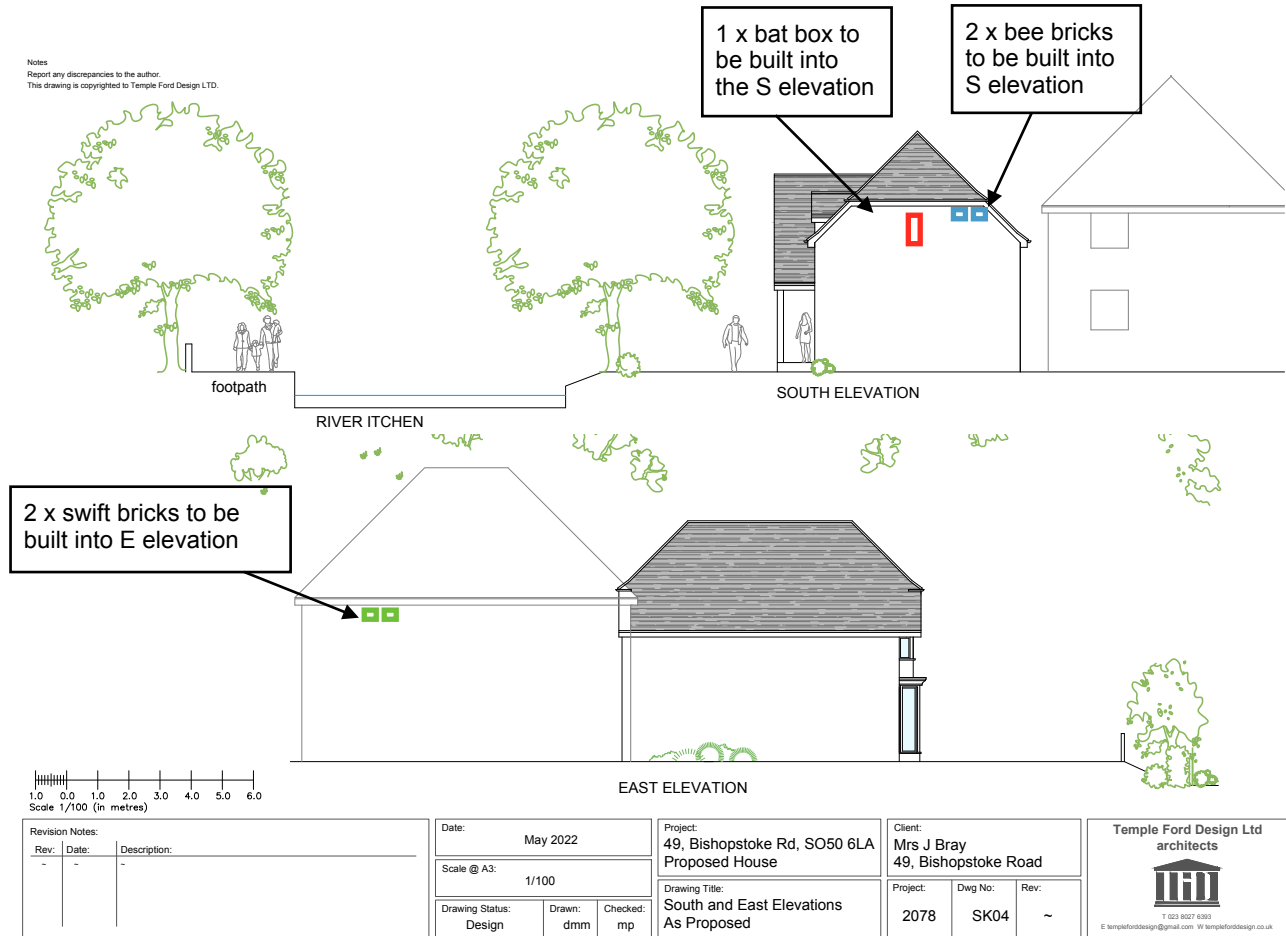
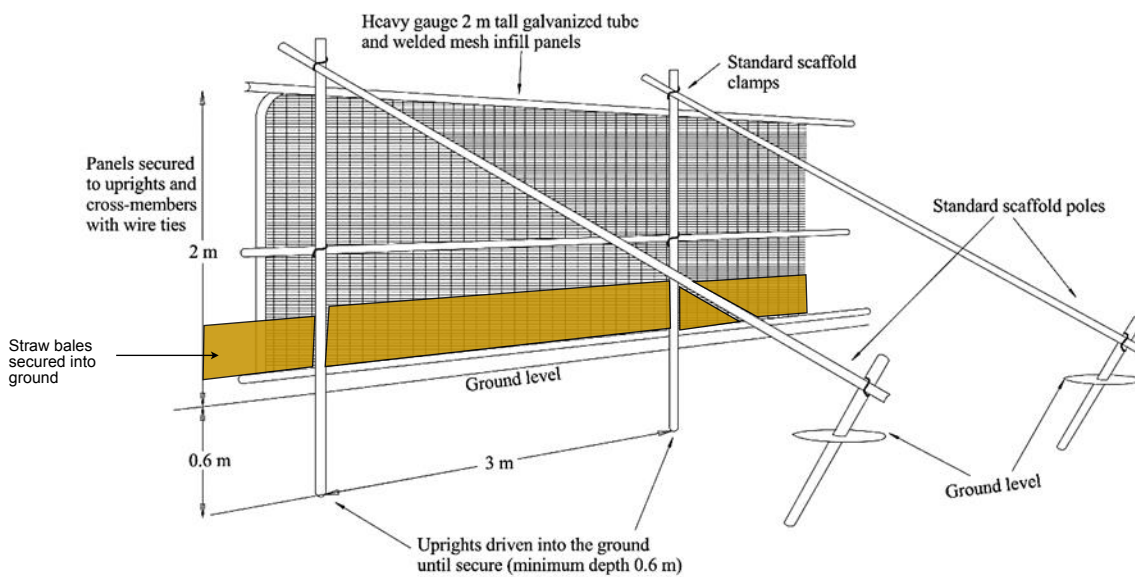


Plan 3 - Proposed elevations



Plan 4 - Proposed enhancements

- 1 x bat box to be built into the S elevation ■
 2 x swift bricks to be built into the E elevation ■
 2 x bee bricks to be built into S elevation ■

**Plan 5 - Example of bund**

8 Appendices

8.2 Appendix B - Figures

Figure 1 - North boundary



Figure 2 - North boundary looking east



Figure 3 - Looking south



Figure 4 - West boundary looking north



Figure 5 - North and west elevations of garage



Figure 6 - East elevation of garage



Figure 7 - South elevation of garage



Figure 8 - Cobwebs at ridge, No gaps between rafters



Figure 9 - High levels of natural light



Figure 10 - No raised or missing tiles



Figure 11 - No raised or missing tiles



Figure 12 - No raised or missing tiles



Figure 13 - No gaps between soffit and wall



Figure 14 - East bank shallow gradient. West bank concrete wall



Figure 15 - Example of built in bat bricks



Figure 16 - Example of Vivara Pro build-in woodstone bat box with cladding



Figure 17 - Example of built in swift brick



Figure 18 - Example of bee bricks



Figure 19 - Example of hedgehog access



8 Appendices

8.3 Appendix C - Tables

Table 1 - Bird species recorded within a 1km radius of the site

Species		Date recorded
Barn Owl	<i>Tyto alba</i>	2004 to 2019
Black Kite	<i>Milvus migrans</i>	1996 and 2014
Black Redstart	<i>Phoenicurus ochruros</i>	1993 to 2019
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	2002 to 2019
Brambling	<i>Fringilla montifringilla</i>	1998 to 2019
Cetti's Warbler	<i>Cettia cetti</i>	1994 to 2019
Common Tern	<i>Sterna hirundo</i>	2014
Crossbill	<i>Loxia curvirostra</i>	1999 to 2019
Cuckoo	<i>Cuculus canorus</i>	1993 to 2019
Curlew	<i>Numenius arquata</i>	1995 to 2017
Dartford Warbler	<i>Curruca undata</i>	2003 to 2015
Fieldfare	<i>Turdus pilaris</i>	2002 to 2015
Firecrest	<i>Regulus ignicapilla</i>	1994 to 2019
Golden Plover	<i>Pluvialis apricaria</i>	1993 to 2013
Goosander	<i>Mergus merganser</i>	1997 to 2019
Goshawk	<i>Accipiter gentilis</i>	2012
Grasshopper Warbler	<i>Locustella naevia</i>	2002 and 2019
Great Black-backed Gull	<i>Larus marinus</i>	2003 to 2019
Green Sandpiper	<i>Tringa ochropus</i>	1996 to 2019
Grey Heron	<i>Ardea cinerea</i>	2002 to 2016
Grey Partridge	<i>Perdix perdix</i>	2019
Grey Wagtail	<i>Motacilla cinerea</i>	1999 to 2019
Hawfinch	<i>Coccothraustes coccothraustes</i>	2005
Hen Harrier	<i>Circus cyaneus</i>	2012
Herring Gull	<i>Larus argentatus</i>	2002 to 2019
Hobby	<i>Falco subbuteo</i>	1996 to 2019
House Sparrow	<i>Passer domesticus</i>	1999 to 2013
Kingfisher	<i>Alcedo atthis</i>	1996 to 2019
Lapwing	<i>Vanellus vanellus</i>	1993 to 2019
Lesser Black-backed Gull	<i>Larus fuscus</i>	1993 to 2019
Lesser Redpoll	<i>Acanthis cabaret</i>	1995 to 2017
Lesser Spotted Woodpecker	<i>Dryobates minor</i>	2014

Table 1 cont. - Bird species recorded within a 1km radius of the site

Species		Date recorded
Linnet	<i>Linaria cannabina</i>	1994 to 2014
Little Egret	<i>Egretta garzetta</i>	1996 to 2019
Little Gull	<i>Hydrocoloeus minutus</i>	2008
Little Ringed Plover	<i>Charadrius dubius</i>	2012
Marsh Tit	<i>Poecile palustris</i>	2003 to 2016
Mediterranean Gull	<i>Ichthyaetus melanocephalus</i>	2004 to 2019
Merlin	<i>Falco columbarius</i>	2005 to 2014
Mistle Thrush	<i>Turdus viscivorus</i>	2009 and 2019
Nightingale	<i>Luscinia megarhynchos</i>	1994 and 2003
Nightjar	<i>Caprimulgus europaeus</i>	2012
Osprey	<i>Pandion haliaetus</i>	2001 to 2019
Oystercatcher	<i>Haematopus ostralegus</i>	2009 to 2019
Peregrine	<i>Falco peregrinus</i>	1995 to 2018
Pied Flycatcher	<i>Ficedula hypoleuca</i>	1993 to 2019
Pochard	<i>Aythya ferina</i>	2002
Red Kite	<i>Milvus milvus</i>	2006 to 2018
Redstart	<i>Phoenicurus phoenicurus</i>	1993 to 2016
Redwing	<i>Turdus iliacus</i>	1998 to 2017
Reed Bunting	<i>Emberiza schoeniclus</i>	2007 to 2016
Ring Ouzel	<i>Turdus torquatus</i>	2012 to 2016
Ruff	<i>Calidris pugnax</i>	2012
Sand Martin	<i>Riparia riparia</i>	1994 to 2018
Shelduck	<i>Tadorna tadorna</i>	2014
Short-eared Owl	<i>Asio flammeus</i>	2016
Shoveler	<i>Spatula clypeata</i>	2002 to 2014
Siskin	<i>Spinus spinus</i>	1999 to 2017
Skylark	<i>Alauda arvensis</i>	1996 to 2017
Snipe	<i>Gallinago gallinago</i>	1995 to 2016
Song Thrush	<i>Turdus philomelos</i>	2003 to 2019
Spoonbill	<i>Platalea leucorodia</i>	2019
Spotted Flycatcher	<i>Muscicapa striata</i>	1994 to 2016
Starling	<i>Sturnus vulgaris</i>	2009 to 2016
Tree Pipit	<i>Anthus trivialis</i>	2012 to 2014
Tree Sparrow	<i>Passer montanus</i>	2007

Table 1 cont. - Bird species recorded within a 1km radius of the site

Species		Date recorded
Turtle Dove	<i>Streptopelia turtur</i>	2003
Water Pipit	<i>Anthus spinoletta</i>	2015 to 2019
Water Rail	<i>Rallus aquaticus</i>	1997 to 2018
Wheatear	<i>Oenanthe oenanthe</i>	1994 to 2016
Whimbrel	<i>Numenius phaeopus</i>	2002 to 2014
Whinchat	<i>Saxicola rubetra</i>	2003 to 2019
White Stork	<i>Ciconia ciconia</i>	2018
Wood Warbler	<i>Phylloscopus sibilatrix</i>	2013 to 2015
Woodcock	<i>Scolopax rusticola</i>	2001 to 2018
Yellow Wagtail	<i>Motacilla flava</i>	1996 to 2018
Yellowhammer	<i>Emberiza citrinella</i>	2004 to 2014