Preliminary Ecological Appraisal and Bat Building Assessment

24 Maidstone Road
Borough Green
Sevenoaks
Kent
TN15 8BD

8th November 2017

Diocese of Rochester
c/o Savills
Exchange House
Petworth
GU28 0BF

Unit 1 Mill Farm
Barcombe Mills Road
Barcombe
East Sussex
BN8 5BP

Telephone: +44 (0)1273 911180

info@arbeco.co.uk

Document information

Report title:	Preliminary Ecological Appraisal and Bat Building Assessment
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Project manager:	Rosie McLaughlin BSc (Hons) MSc Grad CIEEM
Author:	Francesca West BSc (Hons) MRes Grad CIEEM
Surveyor:	Francesca West BSc (Hons) MRes Grad CIEEM
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Checked by:	Nick Deykin BSc (Hons) Grad CIEEM
Authorised by:	Dr Stephanie Murphy bsC (Hons) PhD MCIEEM

Notice to Interested Parties

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

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EXECUTIVE SUMMARY

0.1 Arbeco Ltd. were commissioned by the Diocese of Rochester c/o Savills to carry out a preliminary ecological appraisal (PEA) and bat building assessment (BBA) of the Parsonage at 24 Maidstone Road, Borough Green, Sevenoaks, Kent TN15 8BD to help inform the proposed re-development of the site.

0.2 The habitats within the site boundary included amenity grassland, semi-improved grassland, hardstanding, built structures, hedgerow with trees, introduced shrub, scattered trees, tall ruderal vegetation, scrub, bare ground and fences.

0.3 The habitats had the potential to support badgers *Meles meles*, bats, breeding birds, great crested newts *Triturus cristatus*, hazel dormice *Muscardinus avellanarius* and reptiles.

0.4 The results of the BBA concluded that the single storey garage earmarked for demolition had **negligible suitability for roosting bats**. The two-storey residential building had **moderate suitability for roosting bats** due to the existence of potential roosting features. The main house will not be impacted upon by the proposed development.

0.5 Two trees on site, a single beech tree and a single lime tree within the western hedgerow were considered suitable to support roosting bats due to the age, species, height, and ivy growth. These trees will not be removed to facilitate development.

0.6 No further surveys are considered necessary for the following species due to the lack of suitable habitats or lack of impacts upon suitable habitats: badgers, bats, breeding birds, great crested newts, hazel dormice and reptiles.

0.7 However, a precautionary approach to site clearance works to facilitate development is recommended for breeding birds and reptiles. This includes specific timings for vegetation removal to avoid sensitive periods and the hand de-construction of suitable reptile hibernation features.

0.8 Biodiversity enhancements should be incorporated into the development and Section 6 of this report provides detail on potential enhancements including the inclusion of wildlife access fencing and bird and bat boxes on the newly developed and existing residential properties on site.

1 INTRODUCTION

1.1 Arbeco Ltd. were commissioned by the Diocese of Rochester c/o Savills to carry out a preliminary ecological appraisal (PEA) and bat building assessment (BBA) of the Parsonage at 24 Maidstone Road, Borough Green, Sevenoaks, Kent, TN15 8BD to help inform the proposed re-development of the site.

1.2 The objectives of the PEA were to assess the potential of the site to support protected species and/or species of conservation importance by identifying potential habitat for protected species and/or species of conservation concern and by evaluating the constraints that the presence of any protected species or species of conservation concern may place on the proposed re-development of the site.

1.3 The BBA of the site involved carrying out a detailed assessment to assess the likelihood and potential of the buildings supporting bat species. The assessment comprised of a thorough internal and external inspection of all the built structures on site for the presence of bats and/or any evidence of bats or the likelihood that the building could support bat species.

1.4 The PEA and BBA survey also involved assessing the buildings' potential to support breeding birds and inspecting the building for any evidence of occupation by breeding birds.

Legislation and Policy

1.5 Certain habitats and species including nesting birds, bats, great crested newts *Triturus cristatus* are afforded protection under the Conservation of Habitats and Species Regulations 2010 and the Wildlife & Countryside Act 1981 (as amended). Further information on the legislation is included in Appendix A.

1.6 In general the above legislation makes it an offence to:

- Deliberately/intentionally or recklessly kill, injure or take a protected species;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a protected species uses for shelter or protection whether the species is present or not;
- Intentionally or recklessly disturb a protected species while it is occupying a structure or place that it uses for shelter or protection;
- Deliberately take or destroy the eggs of species protected by this legislation (such as nesting birds).

1.7 Section 41 of the Natural Environment and Rural Communities Act (2006) lists the species and habitats of principal importance for the conservation of biodiversity in England and acts as a guide to local authorities in implementing their duties under Section 40, to have regard to the conservation of biodiversity in England.

1.8 The Protection of Badgers Act (1992) prohibits reckless and/or intentional cruelty, injury or killing of badgers and the interference with badger setts.

1.9 Under The National Planning Policy Framework (NPPF) 2012 protected sites and species are a material consideration in determining planning applications.

Site Description

1.10 The site is located within the village of Borough Green within the county of Kent (Ordnance Survey Grid Reference for the centre of the site: TQ 60922 57184). The site lies within the Kent Downs Area of Outstanding Natural Beauty (AONB).

1.11 The site is approximately 0.2 ha in area and comprises semi-improved grassland, introduced shrub, hedgerow with trees, scattered trees, buildings, hardstanding, amenity grassland, bare ground and tall ruderal vegetation.

1.12 The location of the site is shown in Figure 1.1 and the extent of the site boundary is shown in Figure 1.2. The buildings subject to the bat building assessment are shown in Figure 1.3.

1.13 The site is bordered to the north by the A25 and to the east, south and west by residential dwellings and gardens.

1.14 The habitats within the wider landscape comprise woodland copses, watercourses, waterbodies, public green space and the disused Borough Green Quarry to the south-west of site.

Development Proposals

1.15 The development proposals comprise the construction of a single residential dwelling to the east of the existing residential property at 24 Maidstone Road. Final structural specifications of the proposed dwelling were not available at the time of the survey but are likely to comprise the creation of a two-storey residential dwelling. However, an indicative development footprint was provided at the time of the habitat assessment.

1.16 A shared access driveway will service both residential dwellings following completion with the existing driveway slightly extended towards a proposed double garage. This double garage will be associated with the existing 24 Maidstone Road property. To facilitate development the existing single storey garage to the east of the residential property at 24 Maidstone Road will be demolished.

1.17 The existing soft landscape will be retained as much as possible including the mature hedgerow with trees that forms the site boundaries. The location of the proposed double garage associated with 24 Maidstone Road will require the removal or at least the significant pruning of trees within the immediate locality.

2 METHODS

Desk Study

2.1 The Multi Agency Geographic Information for the Countryside (MAGIC) website provided by the Department for Environment, Food and Rural Affairs (Defra) was consulted to obtain information about any international or European level designated nature conservation sites within 2 km of the site boundary, afforded protection either directly by the Conservation of Habitat and Species Regulations 2010 (as amended) or to the same level of protection through planning policy (the National Planning Policy Framework and Local Development Framework).

2.2 Information regarding statutory designated sites, such as Sites of Special Scientific Interest (SSSI) within a 2 km radius of the site and any records for European Protected Species Mitigation (EPSM) licences, were also obtained from MAGIC.

2.3 Records were screened for relevance and age with only those from the last 10 years and of species that could occur on site considered further.

2.4 Aerial photos of the site (Google, 2017) were examined to determine habitats surrounding the site and hence species likely to be present in order to make appropriate recommendations in the wider landscape context.

Field Survey

2.5 The survey was conducted in accordance with The Handbook for Phase 1 Habitat Survey (JNCC 2010), and included searches for signs of protected species, as described in the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2013).

2.6 A PEA of the site was carried out by a suitably qualified ecologist, Francesca West BSc (Hons) MRes Grad CIEEM, on the 17th October 2017 in order to evaluate any habitat on the site with the potential to support protected species and/or other species of conservation concern that could be relevant in respect of planning policies.

2.7 In addition, the habitats within the survey area were assessed for their potential to support legally protected or otherwise notable flora and fauna. Where suitable habitat was identified on site, a search was conducted for signs indicating the presence of protected species such as droppings, burrows, tracks and evidence of feeding. Where species are not specifically evaluated, this indicates that no habitat of potential value for these species was identified during the survey.

2.8 Consideration was also given to habitats outside the site, in order to evaluate the ecological context of the site within the wider landscape. Adjacent habitats were also considered with respect to their own ecological value and their potential to enhance the ecological value of habitats within the site.

2.9 Searches were made for invasive non-native plant species focussing on those species currently listed in the revised Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

2.10 The plant species nomenclature follows that of Stace (2010). Plant species observed within each habitat type were recorded using the DAFOR system which stands for Dominant, Abundant, Frequent, Occasional or Rare.

Bat Building Assessment

2.11 The methods used in the bat building inspection were based on those recommended in English Nature's Bat Mitigation Guidelines (Mitchell-Jones 2004), the Joint Nature Conservation Committee's Bat Worker's Manual (Mitchell-Jones and McLeish 2004) and the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

2.12 The suitability of the buildings on site for bat roosts was assessed by examining structural features. Structural features that may influence the suitability of a building to support roosting bats include the presence of a roof void, the presence of access points into the building (including gaps beneath barge boards, soffits and fascias, gaps under lead flashing, gaps within masonry and under loose tiles, gaps between mortise and tenon joints), the complexity and size of any roof void and daytime light levels in the roof void.

2.13 The suitability of the buildings to support roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may influence roost potential include whether the structure is in a semi-rural or parkland location, its proximity to a significant linear habitat features such as a watercourse, mature hedgerow, wooded lane or an area of woodland.

2.14 Taking account of these architectural and habitat features, the buildings were then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016) and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat surveys later in the year, or alternatively to obtain sufficient information that would dismiss the need for further assessment.

2.15 A detailed bat building inspection was undertaken on the 17th October 2017 by a suitably qualified ecologist Francesca West BSc (Hons) MRes Grad CIEEM. An external search around the perimeter of the buildings was conducted and any possible access points i.e. gaps and crevices were noted and surveyed with the high powered torch, ladder and endoscope as required.

2.16 A systematic internal inspection of the buildings was conducted where possible and all visible surfaces were surveyed for signs of bat presence.

2.17 Features of potential value to bats were surveyed not only for the presence of bats but also for signs that could indicate use by bats, such as:

- Bat droppings;
- Staining of access points used by bats to enter the structure; and
- Feeding remains such as moth and butterfly (Lepidoptera) wings.

Survey Constraints

2.18 Due to seasonal behaviour of animals and the seasonal growth patterns of plants, ecological surveys may be limited by the time of year in which they are undertaken. This survey was undertaken in October and, as such, it may not provide a complete list of the plants and animals that may be present, or which may seasonally utilise the site.

2.19 However, the information gathered for this ecological survey has facilitated an evaluation of the habitats on site and the likely use of the site by legally protected and notable species. This survey has also given appropriate baseline data for the determination of the requirement for further surveys and/or mitigation and enhancement works.

2.20 Bats are difficult to locate in large structures, with so many potential roosting areas, particularly in inaccessible areas such as large buildings, finding the exact roosting site can be difficult, especially male/single bat roosting sites.

2.21 Bats can have seasonal use of buildings and being so mobile may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason bats may potentially be present but remain undetected, particularly during day time assessment surveys.

2.22 The internal inspection of the existing residential dwelling was not possible at the time of the building assessment due to access restrictions. However, under current development proposals the existing residential dwelling will not be impacted upon. Similarly, due to the current use of the garage as a storage unit, internal access was not possible. However, an internal inspection of the garage was possible through exterior windows using a high-powered torch.

3 RESULTS

Desk Study

3.1 Records of statutory designated sites and European Protected Species Mitigation licences within 2 km of the site boundary were obtained from MAGIC (2017).

Designated sites

3.2 The site lies within the Kent Downs AONB which comprises a mosaic of habitats of conservation concern interspersed with modern agricultural landscape. Habitats of high ecological value found within the AONB include semi-natural chalk grassland and scrub, wet pasture and heath and acid grassland with a network of high-quality linear features including species-rich hedgerows and flower-rich field margins.

3.3 The National Inventory of Woodland and Trees includes a number of Ancient and Semi-Natural Woodlands within 2 km of the site boundary. The closest area of Ancient and Semi-Natural Woodland is located approximately 0.4 km south-west of the site boundary. The largest area of Ancient and Semi-Natural Woodland is the woodland complex of Mereworth/Great Leybourne/Comp/Blaze Woods/Peckham Woods approximately 2 km south-east of the site boundary comprising 389 ha of broadleaved woodland.

3.4 A single statutory designated site is located within 2 km of the proposed site as shown in Table 3.1 below.

Table 3.1 Statutory designated sites within 2 km of site boundary

Name of site	Distance and direction from site	Reason for designation
Bourne Alder Carr Site of Special Scientific Interest (SSSI)	1.5 km south-west	Mixed and yew woodland

3.5 There are no waterbodies located within 500 m of site boundary.

Phase 1 Habitat Survey

3.6 The habitats present on site are shown in Figure 3.2. The habitats present on site comprise amenity grassland, semi-improved grassland, hardstanding, built structures, hedgerow with trees, introduced shrub, scattered trees, tall ruderal vegetation, scrub, bare ground and fences. Potential habitats/species/features of interest are shown in the Target Notes in Figure 3.2 and Appendix C. Photographs of the site are shown in Appendix D.

Amenity Grassland

3.7 Amenity grassland was recorded within the rear garden space of the existing 24 Maidstone Road, see Photograph 1. The area of grassland was maintained at a short sward which is dominated by perennial rye grass *Lolium perenne* with frequent

occurrences of yarrow *Achillea millefolium* and locally abundant areas of moss *Bryophyta* species.

3.8 Low-lying flowering plant species such as greater plantain *Plantago major* was found in abundance with locally abundant white clover *Trifolium repens* and daisy *Bellis perennis* with rare occurrences of dandelion *Taraxacum officinalis* and spear thistle *Cirsium vulgare*.

3.9 A small area of grassland, approximately 107 m^2, was located at the front of the residential dwelling and comprised a sward height that was slightly taller than the sward height found within the rear garden. This area of grassland was still managed as an area of amenity garden space which borders the footpath to the front of the house. This area of grassland was dominated by creeping bent *Agrostis stolonifera* with rare occurrences of moss species.

3.10 Low-lying forb species included an abundance of ground ivy *Glechoma hederacea* and creeping buttercup *Ranunculus repens* with a local abundance of dandelion in places. Frequent occurrences of white clover with occasional daisy and wild carrot *Daucus carota* were also recorded with rarer occurrences of low-lying forb species including greater plantain, rough hawkbit *Leontodon hispidus*, spear thistle and spurge *Euphorbia* species.

Semi-Improved Grassland

3.11 An area of semi-improved grassland comprises the dominant habitat type found within the development area, see Photograph 2. This area of grassland has recently undergone some management but has been left to grow. The dominant grass species within this area comprises fescue *Festuca* species with occasional occurrences of cocks-foot *Dactylis glomerata* and saplings and rare occurrences of yarrow.

3.12 Low-lying forb species that were present included an abundance of creeping buttercup with frequent ribwort plantain *Plantago lanceolata*, occasional wild carrot, locally abundant areas of ground ivy and white clover and rarer occurrences of dandelion, field bindweed *Convolvulus arvensis* and broadleaved dock *Rumex obtusifolius*. Taller forb species included occasional occurrences of ragwort *Jacobaea vulgaris* with rare bristly oxtongue *Picris echioides*, smooth hawksbeard *Crepis capillaris*, and creeping thistle *Crepis capillaris*.

Hardstanding

3.13 Hardstanding forms the existing gravel driveway, turning circle and footpath associated with the existing residential dwelling, see Photograph 3.

Built Structures

3.14 Three buildings are found on site and comprise the existing residential dwelling at 24 Maidstone Road, a single storey garage to the north of the development area and a wooden storage shed to the south of the residential dwelling within the associated garden space, see Photograph 4.

Hedgerow with Trees

3.15 Hedgerow with trees forms the site boundary to the north, east, south and west, see Photograph 5. The boundary hedgerow to the north and west of the site is defunct in places whereas the boundary hedgerow to the south and east of the site is intact. The boundary hedgerows on site are considered to be a UK Biodiversity Action Plan (BAP) priority habitat due to the presence of native woody tree species.

3.16 The hedgerow with trees to the north of the site contains the non-native invasive species cherry laurel *Prunus laurocerasus* with a mature yew *Taxus baccata* tree and immature hawthorn *Crataegus monogyna*. This area of hedgerow is defunct in places to allow both pedestrian and vehicular access onto site. The hedgerow to the west of site is defunct in places as a result of low-light levels restricting understorey growth as a result of the canopy cover of a mature beech *Fagus sylvatica* tree. The remainder of the western hedgerow is intact.

3.17 The hedgerow to the east of site is species-poor as it comprises a single row of beech trees with an understorey of holly *Iilex aquifolium* that separates the site from the neighbouring property. However, the majority of the hedgerows on site contain native woody species such as elder *Sambucus nigra*, hazel *Corylus avellana*, Leyland cypress *Cupressus leylandii*, common lime *Tilia x europaea*, beech, ash *Fraxinus excelsior*, holly, sycamore *Acer pseudoplatanus* and field maple *Acer campestre* with an understorey of snowberry *Symphoricarpos albus* and ground flora comprising ivy *Hedera helix*, common nettle *Urtica dioica*, common mouse-ear *Cerastium fontanum*, creeping bent *Agrostis stolonifera*, bramble *Rubus fruiticosus* and in places bare ground. The hedgerow to the south of the existing residential dwelling also contains a small area of the non-native species bamboo *Bambusoideae* species.

Introduced Shrub

3.18 Introduced shrub is found across site within planted borders, raised vegetable beds, hedgerow boundaries and climbing the rear of the existing residential dwelling, see Photograph 6. The planted borders within the development area have been left unmanaged and therefore contain pioneer species along with ornamentals. The introduced shrub borders within the garden space of the existing residential dwelling are managed and therefore predominantly contain ornamental non-native plant species.

3.19 Ornamental plant species include *Fuschia* species, laurel, *Crocosmia* species, Rose of Sharon *Hypericum calycinum*, opium poppy *Papaver somniferum*, English lavender *Lavandula angustifolia* and rose *Rosa* species. A box *Buxus* species hedge has been planted to the front of the existing property and a honeysuckle *Lonicera periclymenum* was recorded climbing up the rear of the property.

3.20 Pioneer species found within the introduced shrub in the development area include bramble, bindweed, sheep sorrel *Rumex acetosella* and tree saplings.

Scattered Trees

3.21 Scattered trees are found within the semi-improved grassland within the development area and comprise an apple *Malus x domestica,* Cherry *Prunus* species and yew tree

with an apple tree of poor physiological and structural condition within the area of semi-improved grassland to the south of site, see Photograph 7.

Tall Ruderal Vegetation

3.22 An area of tall ruderal vegetation is found to the north of the site adjacent to the neighbouring A25. This area of vegetation is formed of pioneer species that have colonised an earth mound approximately 1 metre in width with a tree stump in the centre. This area is dominated by creeping buttercup with an abundance of ground ivy and goosegrass *Galium aparine* with occasional occurrences of dandelion and ivy. Rare occurrences of giant fescue *Festuca gigantea*, hairy brome *Bromus ramosus*, broadleaved dock, nettle, bittersweet *Solanum dulcamara* and smooth sow-thistle *Sonchus oleraceus* are found throughout.

3.23 Another area of tall ruderal vegetation is found colonising a larger earth mound to the south of the garage within the development area, see Photograph 8. This earth mound has come about as a result of habitat management including vegetation clearance so contains a mixture of pioneer species alongside more mature specimens. Low-lying pioneer species included ivy, ground ivy, broad-leaved dock, dandelion and carrot with taller forbs such as nettle which dominates and rare occurrences of immature elder and spear thistle.

Bare Ground

3.24 Bare ground exists on site beneath the hedgerow with trees to the east of site as a result of human footfall, see Photograph 9. Bare ground is also found in places beneath the tree canopy of the boundary hedgerow with trees.

Scrub

3.25 An area of scrub is found within the semi-improved grassland within the development area dominated by bramble with locally abundant buddleja *Buddleja davidii* and ground flora comprising ivy and nettle, see Photograph 10.

Fences

3.26 A wooden close boarded fence separates the garden space of the existing residential dwelling and the proposed development area, see Photograph 4. A stock-proof fence forms the northern boundary of the development area.

Desk Study

3.27 Records of any European Protected Species Mitigation (EPSM) licences pertaining to protected species within 2 km of the proposed site were obtained from MAGIC (2017).

Bats

3.28 A single EPSM licence was obtained within 2016 for a site approximately 1.6 km south-east of the site boundary. The location of the licence falls within an area of residential development and relates to the damage and destruction of a known common pipistrelle *Pipistrellus pipistrellus* and brown long-eared *Plecotus auritus* bat resting place.

3.29 The site has limited connectivity with the location of this EPSM licence via linking green habitat.

Breeding birds

3.30 A number of records exist for bird species within 2 km of the site boundary within the last ten years. These records include records of tree sparrow *Passer montanus* and turtle dove *Streptopelia turtur*.

Great crested newts

3.31 A single EPSM licence was obtained in 2009 for a site approximately 1.2 km north-west of the site boundary concerned with an area of broadleaved woodland containing waterbodies. The licence relates to the destruction of a known great crested newt (GCN) resting place.

3.32 The site has no connectivity with the location of this EPSM as a result of residential development and network of roads that would prevent GCN dispersal.

Hazel Dormice

3.33 Two EPSM licences were obtained in 2009 and 2013 for the damage and destruction of hazel dormice *Muscardinus avellanarius* breeding sites. One site is located approximately 1.4 km north-west of the site close to an area of broadleaved and Ancient Semi-Natural Woodland, the second site is located approximately 0.7 km south-west of the site boundary in an area of broadleaved woodland that borders the disused Borough Green quarry.

3.34 The site has no connectivity with the locations of the EPSM licences due to a lack of linking green habitat as a result of residential development.

Invertebrates

3.35 The known distribution of the stag beetle *Lucanus cervus* within the UK incorporates the location of the site at 24 Maidstone Road and habitats associated with this species such as deadwood, which is found on site, and Traditional Orchards and Ancient Woodland, are present within 2 km of the site boundary.

Protected Species

3.36 The habitats present on site provide suitable potential to support a range of protected species including badgers, bats, breeding birds, GCN, hazel dormice, invertebrates and reptiles. These species are considered in greater detail below.

Badgers

3.37 No badger setts or signs of badger including latrines, snuffle holes, hairs were recorded during the survey.

3.38 The areas of semi-improved grassland, introduced shrub and tall ruderal vegetation provide opportunities for foraging badgers. The site has connectivity with adjacent residential properties providing similar opportunities for foraging badgers due to gaps within the boundary fences and hedgelines.

3.39 There is no connectivity between the site and habitats within the wider landscape including woodland copses, that provide opportunities for sett-building and foraging badgers.

Bats

3.40 Habitats on site are suitable for foraging bats. The scattered trees and the trees within the hedgerow boundaries were assessed for their suitability to support roosting bats. The scattered trees on site and the majority of trees found within the boundary hedgerows were not considered suitable to support roosting bats due to their small size, age and species of the trees. A single beech tree within the boundary hedgerow to the west of site was considered to have low suitability for roosting bats due to its age and height. A single common lime tree covered in substantial ivy growth, also within the western hedgerow boundary, was considered to have low suitability for roosting bats as potential roosting features may have been concealed beneath the ivy growth.

3.41 A bat building assessment of all three built structures on site, comprising the existing residential dwelling, a single garage and a storage shed, was also undertaken at the time of the PEA. The full results of the bat building assessment are found below within Table 3.1.

3.42 The areas of semi-improved grassland, introduced shrub and hedgerows with trees on site provide foraging opportunities for bat species as the vegetation will attract flying insects. The boundary hedgerow with trees also has the potential to act as a linear feature for commuting bats.

Breeding birds

3.43 Scattered trees, trees contained within the hedgerow boundaries and buildings on site were considered suitable to support breeding birds with the areas of semi-improved grassland, amenity grassland, introduced shrubs and tall ruderal vegetation providing opportunities for foraging. No evidence of nesting birds was recorded at the time of the survey.

Great crested newts

3.44 The site contains suitable terrestrial habitat to support GCN with opportunities for foraging and sheltering within the introduced shrub, tall ruderal vegetation, hedgerows with trees and compost and deadwood piles on site.

3.45 No areas of standing water are present on site and there are no waterbodies located within 500 m of the site boundary.

Hazel Dormice

3.46 The hedgerow with trees that is present on site is considered suitable to support foraging and nesting hazel dormice with the presence of hazel and honeysuckle used by hazel dormice as a source of food and nesting materials.

3.47 Habitats within the wider landscape including woodland copses are considered suitable to support foraging and nesting hazel dormice. The site is not connected via linking green habitat to areas of suitable hazel dormice habitat within the wider landscape.

Invertebrates

3.48 The site is considered to provide foraging, sheltering, breeding and hibernating habitats for a range of invertebrate species. These habitats are able to support invertebrates at a variety of differing life stages with the presence of flowering plant species, tall ruderal

vegetation, scattered trees, hedgerow with trees, semi-improved grassland, compost piles and standing deadwood.

Plants

3.49 No notable or plants of conservation concern were observed on site at the time of the survey.

3.50 The invasive evergreen shrub cherry laurel was recorded within the hedgerow to the north-west of site.

Reptiles

3.51 The site contains suitable habitats for foraging, hibernating and sheltering reptiles with the presence of semi-improved grassland, tall ruderal vegetation, hedgerow with trees, introduced shrub, compost piles and earth mounds.

3.52 There is connectivity between the habitats on site and adjacent habitats of a similar composition with reptile suitability via gaps in the boundary fences.

Other species

3.53 The semi-improved grassland, arable plots, tall ruderal vegetation, introduced shrub and compost piles on site provide suitable habitat for West European hedgehog *Erinaceus europaeus*.

3.54 The site has connectivity with adjacent habitats of a similar composition via gaps within the boundary fences.

Bat Building Assessment

Suitability of surrounding habitat to support bats

3.55 The habitats within the wider landscape comprise areas of deciduous woodland (including Ancient and Semi-Natural Woodland), good quality semi-improved grassland, Traditional Orchards, the disused Isles quarry, arable farmland with hedgerow boundaries and a wooded river valley containing the River Bourne which runs through the Bourne Alder Carr SSSI to the south-west of site. These habitats represent high quality foraging habitat for bats and are connected to site via adjacent residential gardens.

3.56 A mainline railway bound by sections of vegetation including mature trees and hedgerows, is located approximately 0.2 km north of the site. The vegetation bounding the railway line provides linear features for commuting and navigating bats.

3.57 The habitats immediately adjacent to the site comprise residential development with the A25, Maidstone Road adjacent to the north of the site. The adjacent residential properties provide similar opportunities for foraging bats as those found on site whilst the adjacent A25 is considered unlikely to be used by commuting bats within the locality due to a lack of vegetated boundaries.

3.58 It is considered that the habitats immediately adjacent to the site provide potential commuting habitat for bats via linked residential gardens to areas of higher quality foraging and commuting habitat including areas of Ancient and Semi-Natural Woodland. Furthermore, the railway line to the north of site and the River Bourne to the south

provide key features within the wider landscape which could be utilised by navigating bats.

Internal and external inspection of buildings

3.59 The results of the internal and external building inspections are shown in Table 3.1 below and with Photographs contained within the Appendices.

Table 3.1 Bat building assessment results

Building Number/ Reference	Building Description	Suitable Bat Roost Features	Direct evidence of Roosting Bats	Suitability to Support Roosting Bats
Existing Residential Dwelling at 24 Maidstone Road	A double-storey residential dwelling with a pitched hip and valley roof clad with clay tiles. The house is of brick construction with render covering the first floor level. Three concrete-built chimney breasts are located on the building sealed with lead flashing at the junction with the roof. There is a small brick-built lean-to to the south of the property. The eaves were sealed with timber soffits, see Photographs 11 to 14. An internal inspection of the roof void was not possible at the time of the building assessment.	Potential roosting sites were recorded during the external inspection of the building including lifted and missing clay tiles on the roof and gaps within the timber soffit boards.	None.	**Moderate** – based on an external inspection only recording the presence of multiple potential roost sites / access points and immediate surrounding habitat with the suitability to support foraging and commuting bats.
Single Storey Garage	A single-storey garage of concrete construction with a low slope pitched roof clad with corrugated asbestos is located to the north of the development area. The north elevation of the garage comprises a sliding metal door with ivy covering much of the roof and the south, east and west walls, see Photograph 15 to 17. Internal access was restricted in places due to the current use of the garage as a storage shed. Where an	None	None	**Negligible –** due to a lack of potential roosting features.

	internal inspection was possible the garage comprised concrete rafters with a central timber beam. The internal space was light and draughty as a result of the windows missing the panes of glass, see Photograph 16.			
Wooden Garden Shed	A modern wooden shed with a low slope single pitched roof is located within the rear garden space of the existing residential property, see Photograph 18. The shed is well sealed and is currently used for storage and internal access was not possible at the time of the survey.	None	None	**Negligible –** due to a lack of potential roosting features.

4 EVALUATION

Habitats

4.1 The habitats present on site comprise amenity grassland, semi-improved grassland, hardstanding, built structures, BAP hedgerow with trees, introduced shrub, scattered trees, tall ruderal vegetation, scrub, bare ground and fences. In a local context, the site, which is located within a predominantly residential area contains habitats that are locally prevalent such as the areas of semi-improved grassland, hedgerow with trees and introduced shrubs.

4.2 Habitats within the wider landscape include Priority Habitats of a higher ecological value than habitats found on site including Traditional Orchards, Ancient and Semi-Natural Woodland and Good Quality Semi-Improved Grassland. Priority Habitats are not found on site.

4.3 The proposed extension of the existing driveway, construction of a double garage and residential dwelling will impact upon the majority of the habitats within the site boundary including habitats of ecological value such as the area of semi-improved grassland and scattered trees within the development area. The development will also require the demolition of the existing single storey garage to the north of the development area. The proposed development may therefore impact upon protected species that may be utilising the habitats on site.

4.4 Under Section 40 of the NERC Act 2006 the local authority has a “duty to conserve” biodiversity and under the Planning Policy Framework this extends to conserving and enhancing the natural environment. In order to maintain and enhance biodiversity as part of this scheme, appropriate mitigation and compensation for the loss of habitats within this area would be required.

Protected sites

4.5 The site lies within the Kent Downs AONB. The proposed development is unlikely to have any impact upon the AONB as habitats found within the AONB are absent from site. Furthermore, the site has previously been identified by the Local Core Strategy as a site of sustainable development due to a lack of impacts upon the protected status of the habitats found within the AONB.

4.6 A single statutory designated site, Bourne Alder Carr SSSI is located 1.5 km south-west of the site boundary. The SSSI is designated for its mixed and yew woodland which is not found on site. The proposed development is not considered to impact upon the Bourne Alder Car SSSI due to its size and lack of associated habitats.

Species

Badgers

4.7 Badgers receive full protection under the Protection of Badgers Act 1992.

4.8 No evidence for the presence of badger was identified on site at the time of the survey and no suitable sett-building habitat was recorded. Habitats on site such as the areas of introduced shrub, scrub, hedgerow with trees and tall ruderal vegetation are suitable for

foraging badgers although opportunities on site are considered to be minimal. The site has connectivity with adjacent habitats of a similar composition but has no connectivity to habitats of a higher value for foraging badgers within the wider landscape.

Bats

4.9 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981 (as amended).

4.10 No bats or any evidence of bats was recorded during the bat building assessment on all three buildings on site. However, a moderate number of potential roost sites were recorded during the external assessment of the existing residential dwelling at 24 Maidstone Road. This included missing tiles, gaps beneath roof tiles and gaps within the wooden soffit boards. The building was therefore considered to have **moderate suitability to support roosting bats**.

4.11 The two remaining buildings on site, the garage and wooden shed, were considered to have **negligible suitability to support roosting bats** due to a lack of potential roost sites. Bats are highly mobile animals so may roost in potential roost features at any time. Should bats be roosting within the building, the construction of the new residential dwelling and garage has the potential to disturb bats using the site through a temporary increase in external lighting for construction purposes. This could have a negative impact on the favourable conservation status of local bat populations.

4.12 Two trees on site, a single beech tree and a single lime tree within the western hedgerow were considered suitable to support roosting bats due to the age, species, height, and ivy growth. The beech tree will not be impacted upon by the proposed development. However, should bats be using the potential roosting features concerned with the lime tree on site the construction of the new residential dwelling and garage has the potential to disturb bats using the site through a temporary increase in external lighting for construction purposes. This could have a negative impact on the favourable conservation status of local bat populations.

4.13 Habitats within the wider landscape include habitats considered to have a high suitability to support commuting, foraging and roosting bats including, the River Bourne, woodland shaws including areas of Ancient Semi-Natural Woodland and the Bourne Alder Carr SSSI. The site has linking green habitat to these areas of off-site suitable habitats via linked residential gardens. The areas of linking green habitat and habitats found on site are considered to be of a lower quality for foraging and roosting bats than those found within the wider landscape.

Breeding birds

4.14 Breeding birds are protected by the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill, injure or take the birds or their eggs, or to intentionally destroy or disturb a nest, when it is in use or being built.

4.15 The areas of scattered trees, hedgerow with trees, scrub and buildings on site provide suitable nesting opportunities for a variety of nesting bird species. The hedgerow with trees and two of the existing built structures on site will not be impacted upon during development works, however, site clearance to facilitate development will include the removal of scrub and some introduced shrub on site along with the demolition of the

existing garage on site. This may result in the permanent loss of potential nesting opportunities on site although no evidence of nesting birds was recorded at the time of the survey.

Great crested newt

4.16 Great crested newts are fully protected by both the Wildlife and Countryside Act 1981 and the Habitats Regulations, the species is a European Protected Species and a priority species under the UK Biodiversity Action Plan, and has been adopted as a species of Principal Importance in England under Section 41 of the NERC Act (2006).

4.17 Suitable terrestrial habitat for GCN exists on site in the form of tall ruderal vegetation, scrub and compost piles. These suitable areas of GCN habitat will be removed to some extent in order to facilitate development. This will result in the permanent loss of suitable terrestrial habitat for GCN on site however, due to the lack of waterbodies within 500 m of the site boundary it is considered unlikely that GCN would be present on site and therefore, impacted upon by the development.

Hazel Dormice

4.18 Dormice and their habitat are fully protected by both the Wildlife and Countryside Act 1981 and the Habitats Regulations. The dormouse is a European Protected Species and a priority species under the UK Biodiversity Action Plan, and has been adopted as a species of Principal Importance in England under Section 41 of the NERC Act (2006).

4.19 Habitats present on site are considered suitable to support foraging and nesting hazel dormice with the on site presence of the hedgerow with trees and scrub. The scrub will be removed to facilitate development but the hedgerow with trees will not be impacted upon.

4.20 Even though the removal of scrub on site will result in the loss of suitable hazel dormice habitat the habitats on site are considered to be limited providing minimal opportunities for hazel dormice. Furthermore, the site has no connectivity with areas of suitable dormice habitat within the wider landscape so it is considered unlikely that hazel dormice will be present on site and therefore, impacted upon by the proposed development.

Invertebrates

4.21 The stag beetle *Lucanus cervus*, is afforded protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and its known range within the UK incorporates the site at 24 Maidstone Road. This species is associated with decaying wood which can be found within the compost piles and standing deadwood on site.

4.22 Vegetation removal will impact upon habitats suitable for foraging and breeding invertebrates including habitats suitable for stag beetles with the removal of deadwood and compost piles. This could have a negative impact on local stag beetle populations.

4.23 Similarly, the removal of areas of introduced shrub, semi-improved grassland and scrub will result in the permanent loss of foraging and breeding opportunities on site for a variety of invertebrates with the majority of the habitats removed to facilitate development unlikely to be re-instated post-development. However, the site will continue to remain connected to adjacent habitats of a similar composition providing similar opportunities for foraging and breeding invertebrates as those found on site following development completion.

Plants

4.24 No plants of conservation concern were recorded during the site visit.

4.25 The invasive evergreen shrub cherry laurel was recorded on site within the boundary hedgerow with trees to the north-west. Although this species is not listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) this species can be vivacious in nature if left unmanaged. Due to the location of the shrub close to an area of amenity grassland and within a boundary hedgerow, the area of cherry laurel is managed and therefore controlled on site.

Reptiles

4.26 Common species of reptile including common lizard *Zootoca vivipara*, grass snake *Natrix natrix*, slow worm *Anguis fragilis* and adder *Vipera berus* are protected under the Wildlife and Countryside Act 1981 (as amended) meaning they are protected against killing or injuring.

4.27 Habitats on site such as the areas of tall ruderal vegetation, scrub, hedgerow with trees, compost piles and earth mounds offer suitable on site habitat for foraging and hibernating reptiles. Habitats within the wider landscape including Traditional Orchards and woodland provide opportunities for foraging, sheltering and hibernating reptiles. The site does not have linking green habitat with these areas of suitable off-site habitat.

4.28 Habitats required for removal to facilitate development include habitats suitable for foraging and hibernating reptiles such as the area of scrub, compost piles, earth mounds and tall ruderal vegetation. In the absence of mitigation the removal of suitable reptile habitat has the potential to negatively impact local reptile population that may be present. Section 6 provides mitigation measures applicable for the loss of suitable reptile habitat.

5 CONCLUSIONS

5.1 The proposed development site is considered to have low ecological value within a local context as the majority of habitats on site are locally prevalent including areas of semi-improved grassland, hedgerow with trees and introduced shrubs.

5.2 The biodiversity value of the total site area is largely attributed to the following factors:

- Limited site connectivity to habitats within the wider landscape which includes habitats of a higher ecological value with the potential to support protected species and species of conservation concern including Traditional Orchard.
- Limited opportunities found within the habitats on site for protected species.
- The presence of non-native species found within the areas of introduced shrub on site including the non-native but invasive evergreen shrub cherry laurel, present within the boundary hedgerow with trees.

5.3 No evidence of bats was recorded during the bat building assessment. However, the existing residential dwelling associated with 24 Maidstone Road was considered to have moderate suitability to support roosting bats. Due to a lack of impacts on the existing residential building, no further surveys are considered necessary at this time but recommendations to minimise potential disturbance of roosting bats during and post-construction are provided within Section 6 of this report.

5.4 The remaining two built structures on site were considered to have negligible suitability to support bats and no evidence of breeding birds was recorded.

5.5 The proposed development works will comprise the construction of a single residential dwelling to the east of the existing residential property at 24 Maidstone Road with the existing driveway slightly extended towards a proposed double garage.

5.6 To facilitate development the existing single storey garage to the east of the residential property at 24 Maidstone Road will be demolished and some vegetation removal will occur impacting upon areas of semi-improved grassland, scrub, scattered trees, introduced shrub and tall ruderal vegetation.

5.7 The habitats on site are considered to be suitable to support the following protected species; badgers, bats, breeding birds, invertebrates and reptiles. It is considered that vegetation removal to facilitate the development has the potential to impact protected species that may be using the habitats on site.

5.8 Section 6 of this report provides recommendations for mitigation to ensure an offence is not committed during the proposed re-development of the site.

6 RECOMMENDATIONS

6.1 Due to the presence of habitats on site that have the potential to support protected species recommendations to further consider these species in line with the legislation protecting them are given below.

Habitats

6.2 The native woody hedgerows with trees are considered to be a UK Biodiversity Action Plan priority habitat and so should be protected during development following guidance described within the British Standards 5837:2012. Tree protection barriers should be erected around the hedgerow with trees and any trees that are to be retained prior to any materials or machinery being brought onto the site and before any demolition or soil stripping occurs. The location of the tree protection barriers are shown on the Draft Tree Protection Plan and specifications of recommended barriers can be found in Appendix 2 of the Arbeco Arboricultural Impact Assessment Report (2017).

Badgers

6.3 There were no signs of badger observed during the site survey and it is considered that further surveys for badgers are not required at this stage as the habitats within the development footprint do not contain any habitats suitable for sett-building.

Bats

6.4 The residential dwelling was considered to have moderate suitability to support roosting bats and two mature trees within the western hedgerow were considered to have low potential to support roosting bats. However, due to the proposed development having no direct impacts on the building or the two trees with the potential to support roosting bats, no further surveys are considered necessary at this time.

6.5 However, should bats be roosting within the residential dwelling or the two trees within the western hedgerow, the construction of the new dwelling and garage has the potential to disturb bats using the site through an increase in light levels. Therefore, it is recommended that any necessary construction lighting required during the bat active season (April – October inclusive) is kept to an absolute minimum and is not directed at the building or boundary hedgerows. It is also recommended that any external lighting post-development is kept to a reasonable minimum and should include downward facing lights so as not to disrupt any foraging, roosting and commuting bats that may be present.

Breeding birds

6.6 Vegetation removal on site is includes habitats that are suitable for breeding birds. Therefore, it is recommended that any works concerned with suitable bird nesting habitat are undertaken outside the nesting bird season i.e. October to February inclusive. If this is not possible then a nesting bird check should be undertaken within 24 hours of works commencing with any nests identified left in situ until the chicks have fledged.

Invertebrates

6.7 No invertebrates were observed on site during the site survey. However, this may be as a result of the time of year the survey was undertaken. As the site contains high-quality

habitat for invertebrates within areas of introduced shrub, deadwood and hedgerows with trees, it is assumed that invertebrates will be present on site.

6.8 As suitable habitats for invertebrate species will be lost to the proposed development it is recommended that appropriate habitats be re-created and incorporated on site post-development. This can include the creation of areas of deadwood, replacement tree planting to include fruiting tree species and consideration of this species within the landscaping scheme. Examples of recommendations which could be incorporated within the landscaping scheme are further described below in the ecological enhancements section.

Reptiles

6.9 As suitable features for foraging and hibernating reptiles are present on site and will be removed to facilitate development, it is recommended that a precautionary approach is implemented during site clearance works.

6.10 The precautionary approach will stipulate that any features with the potential to be used as refugia for reptiles such as the compost piles and earth mounds, should be dismantled by hand during the reptile active period (March to October inclusive). Similarly, all arisings created from any vegetation clearance are to be taken out of the working area and disposed of off-site unless it can be re-instated in areas that will not be impacted by development. These areas have the potential to create opportunities for hibernating reptiles and will create compensatory refugia for the small amount of hibernation features permanently lost to development.

Biodiversity Enhancements

6.11 Under the National Planning Policy Guidance document, it is a requirement for the planning system to minimise impacts on and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. In order to conserve and enhance the natural environment the following provisions could be included.

- Bird and bat boxes could be installed on proposed buildings and/or mature native trees on site.
- Any trees removed to facilitate development should be replaced with native berry bearing species such as rowan *Sorbus aucuparia* and hawthorn to provide additional foraging and nesting opportunities.
- The landscaping scheme should maintain ecological links by in-fill planting using native species planting. This will reinforce the existing native hedgerows and further provide additional opportunities for foraging and nesting species. Species could include dogwood *Cornus sanguinea*, guelder rose *Viburnum opulus*, wild privet *Ligustrum vulgare*, hawthorn and elder.
- It is recommended that any external lighting on the site is kept to a reasonable minimum and should include downward facing lights so as not to disrupt foraging and commuting bats.

- Where deadwood habitat piles cannot be retained or created invertebrate nest boxes should be installed to provide nesting opportunities and resting places for a variety of invertebrate species. The landscaping scheme could also incorporate a wild flower mix which can be sown within the areas of amenity grassland and planted borders, raised beds and herb gardens should also be included within the proposed development scheme to provide invertebrates with additional foraging opportunities.
- Deadwood habitat piles could be included within appropriate locations or compost piles could be created where possible from the arisings of garden waste and tree works. This will provide additional habitats for a range of species including reptiles, amphibians, invertebrates and small mammals.
- Should any fencing be installed on site it is recommended that gaps are incorporated in any boundary fencing to allow dispersal of species such as the European hedgehog, reptiles and amphibians into the wider landscape.

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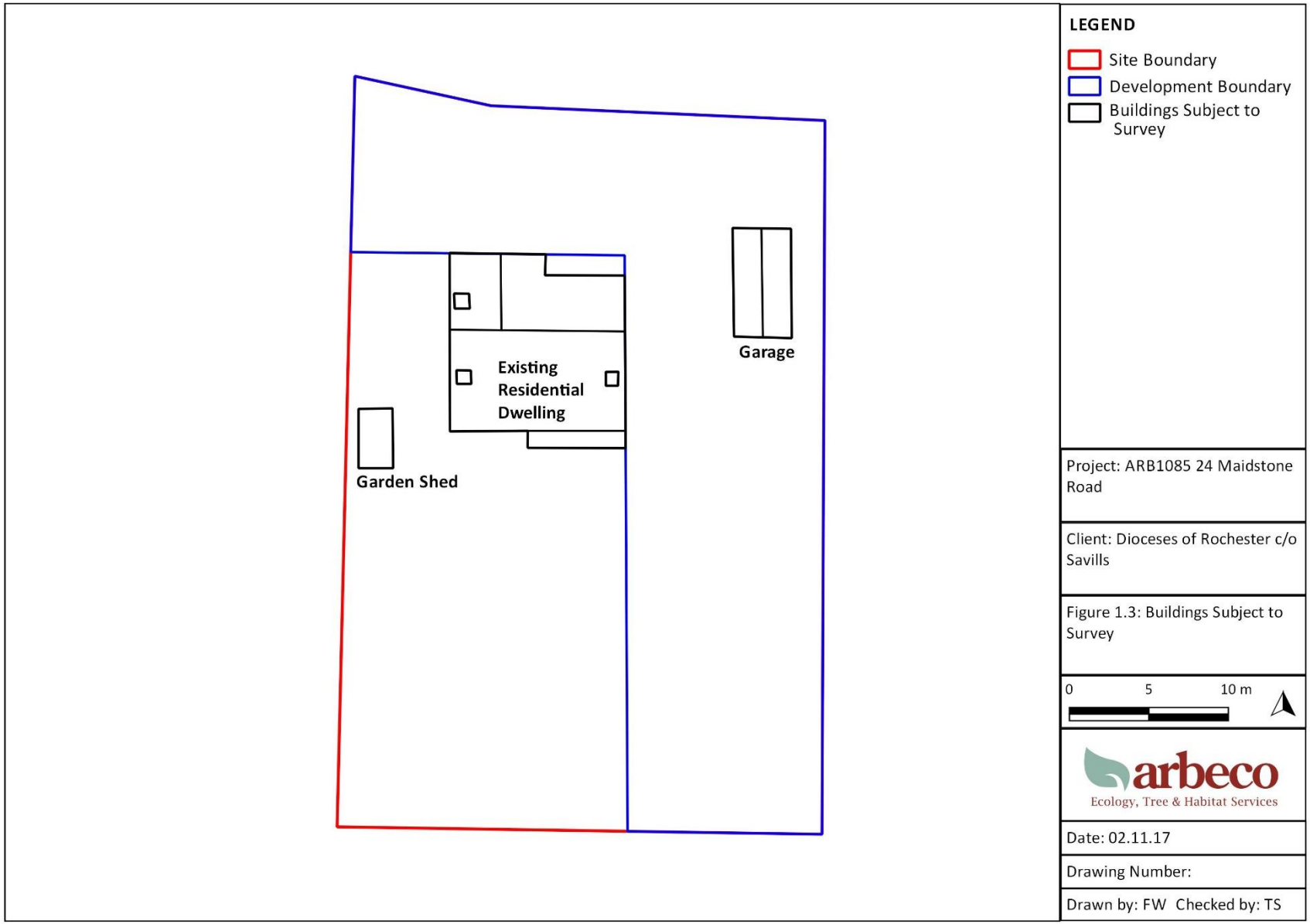
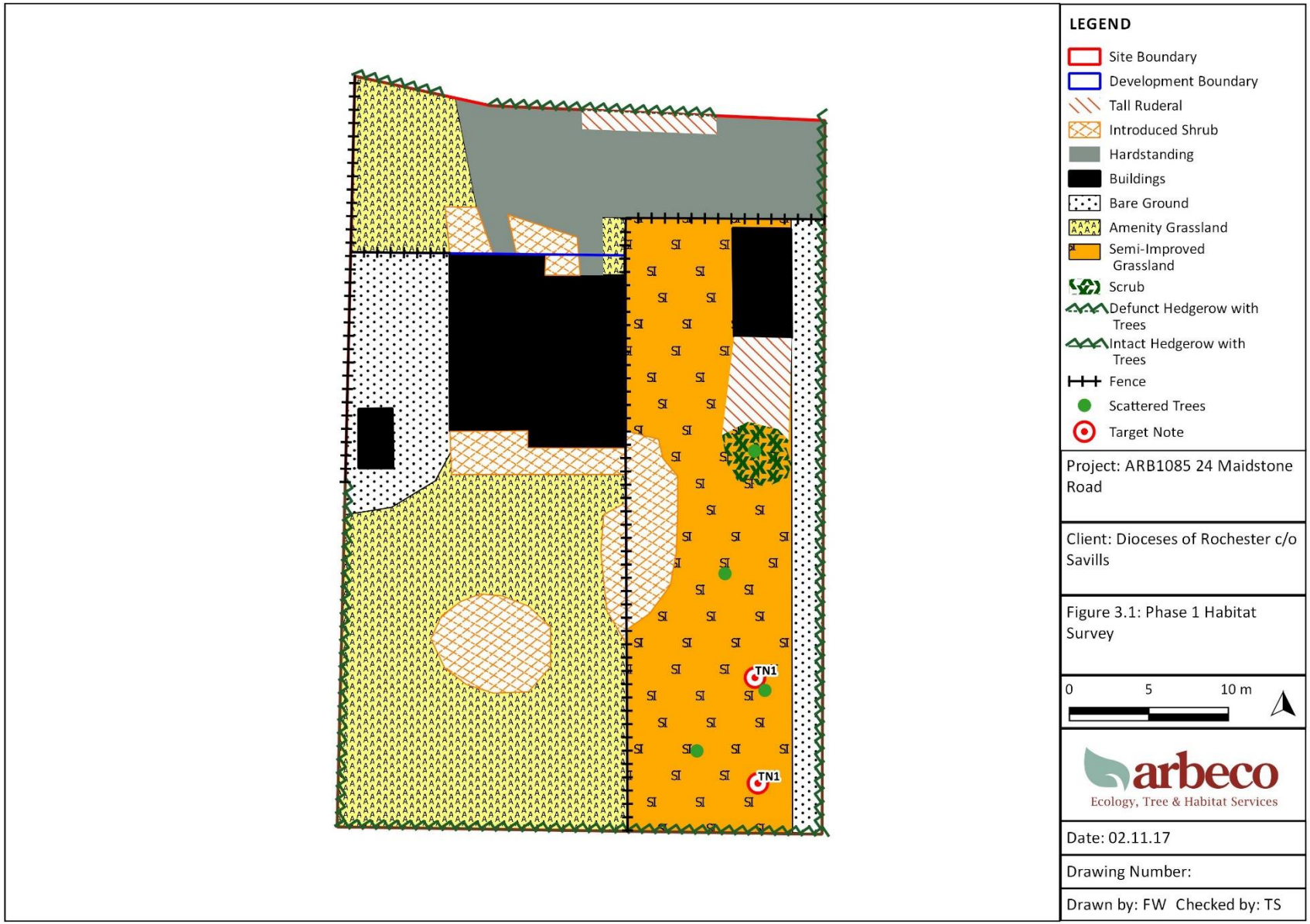
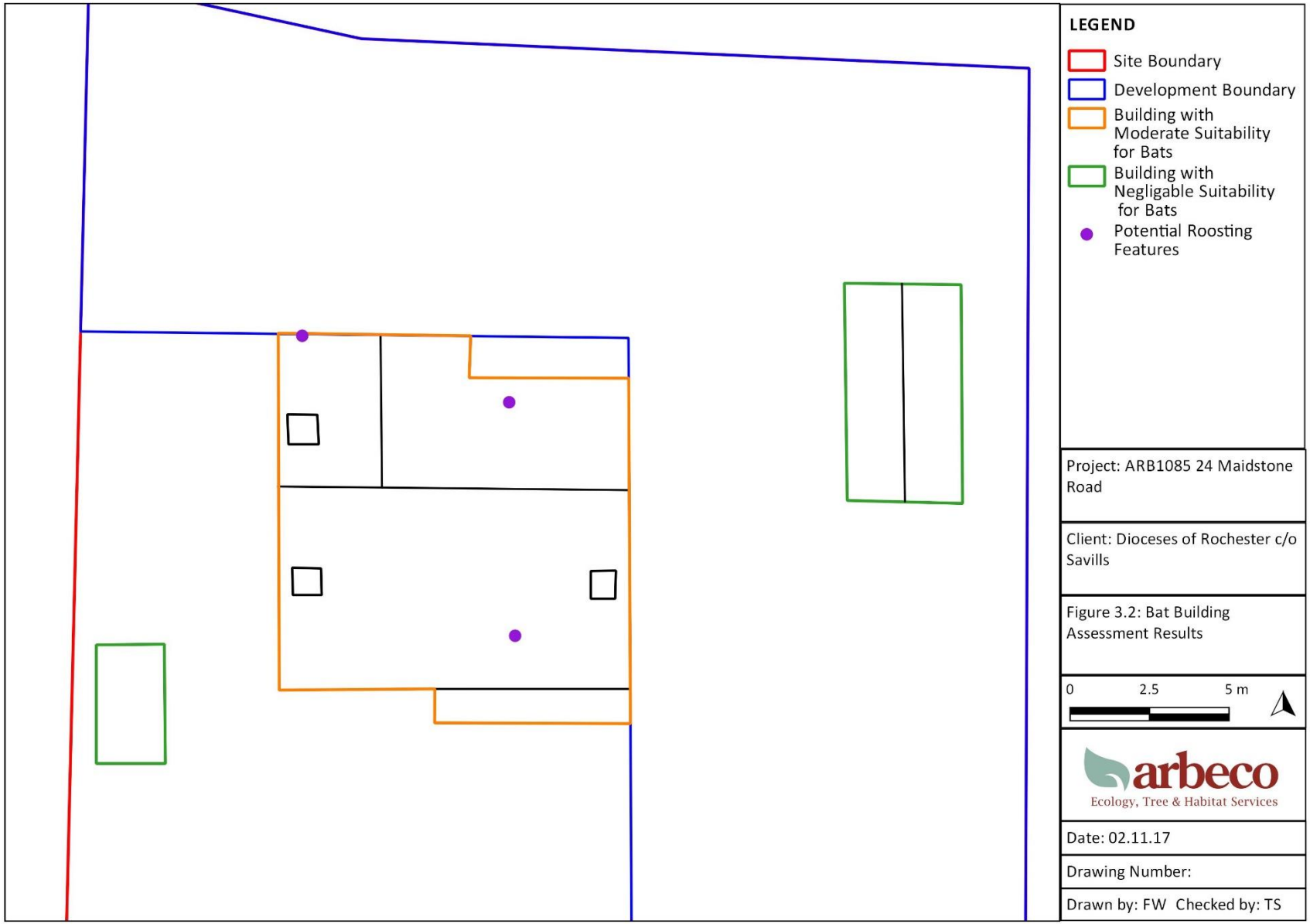
FIGURES


LEGEND
Location of site
Project: ARB1085 24 Maidstone Road
Client: Dioceses of Rochester c/o Savills
Figure 1.1: Location of Site
0 20 40 km
arbeco
Ecology, Tree & Habitat Services
Date: 02.11.17
Drawing Number:
Drawn by: FW Checked by: TS
Contains Ordnance Survey data © Crown copyright and database right 2017
Borough Green
Tollgate
Station
Car Pk
PO
F Sta
PW
School
WESTERN ROAD
A227
A25
HIGH STREET
Liby
Recreation Ground
Pav
Horne Business Estate
Wks
FAIRFIELD ROAD
STONE COURT
THE AVENUE
CRESCENT
STATION ROAD
HILL VIEW
GRIGGS WAY
ROCK ROAD
TILTON ROAD
THE LANDWAY
MCDERMOTT ROAD
ABBOTT ROAD
MONKTON RD
HARRISON ROAD
CONYERD ROAD
CROWHURST ROAD
LENDON ROAD
DRYLAND RD


STERN ROAD
Car Pk
HIGH STREET
PW
Liby
STATION ROAD
HILL VIEW
A25
PW
THE LANDWAY
MCDERMOTT ROAD
ABBOTT ROAD
MONKTON RD
Pav
Recreation Ground
Contains Ordnance Survey data © Crown copyright and database right 2017
LEGEND
Site Boundary
Development Boundary
Project: ARB1085 24 Maidstone Road
Client: Dioceses of Rochester c/o Savills
Figure 1.2: Extent of Site Boundary
0
30
60 m
arbeco
Ecology, Tree & Habitat Services
Date: 02.11.17
Drawing Number:
Drawn by: FW Checked by: TS


Existing
Residential
Dwelling
Garage
Garden Shed
LEGEND
Site Boundary
Development Boundary
Buildings Subject to Survey
Project: ARB1085 24 Maidstone Road
Client: Dioceses of Rochester c/o Savills
Figure 1.3: Buildings Subject to Survey
0
5
10 m
arbeco
Ecology, Tree & Habitat Services
Date: 02.11.17
Drawing Number:
Drawn by: FW Checked by: TS


LEGEND
Site Boundary
Development Boundary
Tall Ruderal
Introduced Shrub
Hardstanding
Buildings
Bare Ground
Amenity Grassland
Semi-Improved Grassland
Scrub
Defunct Hedgerow with Trees
Intact Hedgerow with Trees
Fence
Scattered Trees
Target Note
TN1
TN1
Project: ARB1085 24 Maidstone Road
Client: Dioceses of Rochester c/o Savills
Figure 3.1: Phase 1 Habitat Survey
0
5
10 m
arbeco
Ecology, Tree & Habitat Services
Date: 02.11.17
Drawing Number:
Drawn by: FW Checked by: TS


LEGEND
Site Boundary
Development Boundary
Building with Moderate Suitability for Bats
Building with Negligable Suitability for Bats
Potential Roosting Features
Project: ARB1085 24 Maidstone Road
Client: Dioceses of Rochester c/o Savills
Figure 3.2: Bat Building Assessment Results
0
2.5
5 m
arbeco
Ecology, Tree & Habitat Services
Date: 02.11.17
Drawing Number:
Drawn by: FW Checked by: TS

APPENDIX A Wildlife Legislation

The Wildlife and Countryside Act 1981 (as amended)
Schedule 1
*A*pplies to all wild birds where it is an offence:

- to take, damage or destroy a nest whilst it is being built or in use
- to kill, injure or take any wild bird (subject to certain exceptions)
- to take or destroy the egg of any wild bird.

It is also an offence to disturb any wild bird listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)

- while it is nest building
- at a nest containing eggs or young
- to disturb the dependant young of any such bird.

Schedule 5
For animals fully protected under Schedule 5 which includes, the hazel dormouse, great crested newt, and all bats. It is an offence:

- to intentionally kill or injure or take these species
- to intentionally or recklessly damage or destroy or obstruct access to any structure or place which a species uses for shelter or protection, at any time even if the animal is not present.
- to intentionally or recklessly disturb whilst it is occupying a place which it uses for shelter or protection.

Adder, grass snake, common lizard and slow worm are protected from being killed or injured.

Schedule 8
Specific species of plants listed in Schedule 8 are protected. It is an offence: to intentionally pick, uproot or destroy a wild plant listed in Schedule 8.

Schedule 9
Invasive non-native species are listed under Schedule 9. It is an offence:

- to plant or otherwise cause to grow in the wild.
- If soils are contaminated by invasive non native plant species it becomes classified as
- '*controlled waste*' under the Environmental Protection Act 1990 (England, Wales & Scotland),
- and must be disposed of accordingly.

The Conservation of Habitat and Species Regulations 2010
Schedule 2 applies to all European Protected Species (EPS) which included all bat species, great crested newts and hazel dormice. The protection afforded is overlapping but separate from the Wildlife and Countryside Act 1981 (as amended)

The Protection of Badgers Act 1992
Under this Act it is an offence to intentionally or recklessly interfere with a badger sett by:
a) damaging a sett or any part of one
b) destroying a sett
c) obstructing access to any entrance of a sett
d) disturbing a badger when occupying a sett

Where interference with a badger sett cannot be avoided during development, a licence from Natural England should be applied for.

APPENDIX B: Legislation relating to bats

Bats and the places they use for shelter or protection i.e. roosts, receive European protection under The Conservation of Habitats and Species Regulations 2010, as amended (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2010 (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2010 (as amended) for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* (rather than deliberately) kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

Several bat species are considered to be Species of Principal Importance for Nature Conservation in
England.

The reader should refer to the original legislation for the definitive interpretation.

APPENDIX C: Target Notes

Target notes of important ecological features noted during the field survey and mapped in Figure 3.2.

Target Note	Description
1	Compost piles within the semi-improved grassland within the development area.

APPENDIX D: Site photographs

Photograph 1: Amenity grassland to the rear of the existing residential dwelling.

Photograph 2: Semi-Improved Grassland within the development area.

Photograph 3: Area of hardstanding comprising gravel drive and tarmac pedestrian path to the front of the existing residential dwelling.

Photograph 4: Built structures on site with wooden fencing to the north of the development area.

Photograph 5: Hedgerow with trees to the south of the rear garden of the existing residential dwelling.

Photograph 6: Introduced shrub within the area of semi-improved grassland within the development area.

Photograph 7: Scattered tree within the area of semi-improved grassland within the development area.

Photograph 8: Tall ruderal vegetation growing atop an earth mound to the south of the existing garage.

Photograph 9: Area of bare ground running along the eastern site boundary.

Photograph 10: Area of scrub within the semi-improved grassland within the development area.

Photograph 11: The northern façade of the existing residential building.

Photograph 12: The rear of the existing residential dwelling.

Photograph 13: Gaps within the soffit boards on the northern front of the residential dwelling.

Photograph 14: Lifted clay tiles on the northern façade of the existing residential dwelling.

Photograph 15: Existing single-storey garage within the development area to be demolished.

Photograph 16: Interior of the single-storey garage.

Photograph 17: Western façade of the single-storey garage with ivy coverings.

Photograph 18: Wooden garden shed located within the rear garden of the existing residential dwelling.