

**HENGIST ROAD,
WESTGATE ON SEA,
KENT**

**ECOLOGY
PRELIMINARY BAT SURVEY & EMERGENCE SURVEY**

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SUMMARY

1. During May 2017 LaDellWood were commissioned to undertake a Preliminary Bat Survey at the Hengist Road site. This report provides details of the survey which including a desk top study search and an assessment of buildings and trees on the site. Consideration was given to the value of buildings and trees for supporting bats and breeding birds. Using information gathered from the survey this report assesses any likely ecological constraints to development proposals and provides details of any further survey or ecological mitigation that may be required.
2. During the desktop study a total of eight bat species were identified within 5km of the site.
3. During the survey no evidence of roosting bats was recorded within the on site buildings and low numbers of potential roost features were present externally. The protected species assessment confirmed that the nursing home building is of low habitat value for roosting bats. The garage building is considered of very low habitat value for roosting bats. Trees located on site and off site were considered of very low habitat value for roosting bats. The site is considered of low – moderate habitat for foraging and commuting bats.
4. Further recommendations for emergence survey were been given to fully assess the status of roosting bats within the nursing home building.
5. During the surveys at the site no bats were recorded roosting within the onsite buildings. A single species of bat was recorded foraging and commuting at the site. Activity recorded was of common pipistrelle bat. The protected species assessment confirmed that proposed works will have no significant impact upon roosting bats and low impacts upon foraging and commuting bats. There is potential for high impacts upon breeding birds.
6. Further recommendations have been given to minimize impacts to foraging and commuting bats and breeding birds.

CONTENTS

- 1.0 Introduction**
- 2.0 Methodology**
- 3.0 Results**
- 4.0 Protected Species/Habitat Assessment**
- 5.0 Recommendations**
- 6.0 Conclusions**

Figures

Figures 1-16

Maps

Map 1 – Site Location

Map 2 – Building Locations

Map 3 – Emergence Survey Surveyor Positions

Map 4 – Location of Potential Lighting Impacts

References

Annex

Protected Species Legislation

1.0 Introduction

Background

- 1.1 This report has been prepared by LaDellWood for proposed works at Springfield Nursing Home, Hengist Road, Westgate on Sea, Kent. LaDellWood were commissioned to carry out a preliminary bat survey at the site and subsequently a further bat emergence survey was undertaken at the site. This report represents the findings of the above surveys undertaken on 16th May 2017 and 26th May 2017.

Scope of the Report

- 1.2 This report details the results of the ecological surveys as a preliminary bat survey and bat emergence survey. This report assesses the results and recommends any actions necessary to satisfy statutory guidance, National legislation, European legislation (**see Table 1.3 & Annex 2**) and the requirements of National Planning Policy Framework (NPPF), 11: Conserving and enhancing the natural environment; and recommends further survey works and/or mitigation/enhancement measures where these are required.

Site Context and Status

- 1.3 The site is approximately 0.27 hectare in size and located at NGR TR 316 697. The on-site habitat comprises of amenity grassland, shrub, scattered trees, buildings, hard standings and boundary wall.
- 1.4 The Hengist Road site is located in a semi-rural setting within on the outskirts of Westgate on Sea approximately 3.6 kilometres (km) west of the centre of Margate. Access to the site is via Hengist Road which runs north from Canterbury Road Westgate. The site is surrounded to the north west and south by areas of intensively cultivated calcareous grassland associated with Westgate and Birchington Golf Course. The Ramsgate to London railway line runs east to west adjacent to the northern boundary of the site. Beyond the railway line to the north east of the site is an area of residential housing.

Ecologists

- 1.5 The site surveys were led by Andrew Bodey BSc hons ACIEEM, bat licence Level 2, (2015-13096-clc-clc) who has over six years' experience of ecology practice. The report was prepared by Andrew Bodey and was checked by Tom La Dell MA (botany), MCIEEM, CMLI who has over forty years experience in ecology practice.

Site Proposals

- 1.6 The proposals for the site include the demolition of the existing extension buildings and the construction of new residential extensions and associated parking and landscaped areas.

2.0 Methodology

Desk Study

- 2.1 In order to establish baseline ecological data records of bats were obtained from the Kent and Medway Biological Records Centre (KMBRC). The data search included a search of up to 5km for bat species.

Preliminary Bat Survey

- 2.2 The preliminary bat survey involved a detailed building investigation including inspection of all accessible internal roof voids. A search was made to record evidence of bat roosting activity such as live animals, corpses, droppings, feeding remains, urine and fur staining. Following the internal inspection an external investigation was made of buildings to identify potential bat entrance and or exit locations to the internal voids and potential roosting locations such as gaps beneath roof and ridge tiles or holes in fascias and soffits.

An assessment of the bat habitat value of on-site buildings is made in **Table 1.4, section 4.0**. The assessment was made using criteria set out in **Table 1.1 and 1.2** below, the survey grading criteria followed guidance set out in the current Bat Conservation Trust guidelines (Collins 2016). The surveyor utilised this criteria, along with their expert knowledge and experiences to classify each building or tree highlighted.

Table 1.1: Bat Building Habitat Grading Criteria (adapted from BCT Guidelines Collins 2016)
BUILDINGS/STRUCTURES CONFIRMED AS A BAT ROOST
bats seen roosting during initial assessment survey Evidence suggesting recent use of the building/tree by bats (e.g. accumulations of droppings of a mixture of ages) Social chattering heard within a roost during survey (often on hot days or close to emergence time)
Stage 1: Initial Assessment



Identify building on map, provide a description of significant roost features and/or evidence found during survey.

Stage 2: Further Survey

Further emergence/ dawn return survey to assess status of roost and how bats utilise the site. A minimum of three dusk emergence survey or dawn re-entry surveys undertaken to inform

Stage3: Likely Mitigation requirements

Any works that may impact upon the roost and are likely to commit an offence must be undertaken under EPSM licence.

BUILDINGS/STRUCTURES OF HIGH HABITAT VALUE

Potential Roost Features:

High numbers of potential bat roost features of significance to bats such as Large roof voids, hanging tiles, and cellars.

Site Context:

The site may have good connectivity within the landscape with suitable linear features such as hedgerows, railway lines and water courses. Habitats of high quality for foraging bats such as woodland, water bodies, hedgerows, grazed parklands.

Stage 1: Initial Assessment

Identify building on map, provide a description of significant roost features and/or evidence found during survey.

Stage 2: Further Survey

Further emergence/ dawn return survey to assess status of roost and how bats utilise the site. A minimum of **three** dusk emergence survey or dawn re-entry surveys undertaken.

Stage3: Likely Mitigation requirements

Any works that may impact upon the roost and are likely to commit an offence must be undertaken under EPSM licence.

If no roosting bats are confirmed then works may proceed with suitable impact avoidance measures in place. Mitigation should include the installation of bat roosting features within new proposals such as access to voids, bat roost tiles and or bat boxes.

BUILDINGS/STRUCTURE OF MEDIUM HABITAT VALUE

Potential Roost Features:

Moderate numbers of potential bat roost features of value to bats such as roof voids, loose roof tiles and accessible wooden soffits.

Site Context:

Habitats that may be utilised by foraging bats such as water bodies, grassland, trees and shrubs
Site has some connectivity to the wider landscape with linear features such as tree lines and hedgerows.

Stage 1: Initial Assessment

Identify building on map, provide a description of significant roost features and/or evidence found during survey.

Stage 2: Further Survey

Further emergence/ dawn return survey to assess status of roost and how bats utilise the site. A minimum of **two** dusk emergence survey or dawn re-entry surveys undertaken.



Stage3: Likely Mitigation requirements

If bats are confirmed during surveys any works that may impact upon the roost and are likely to commit an offence must be undertaken under EPSM licence. If during the surveys roosting bats are confirmed then further survey may be required to fully assess usage of the building.

If no roosting bats are confirmed then works may proceed with suitable impact avoidance measures in place. Mitigation should include the installation of bat roosting features within new proposals such as bat roost tiles and or bat boxes.

BUILDINGS/STRUCTURES OF LOW HABITAT VALUE

Potential Roost Features:

Low numbers of potential bat roost features such as loose tiles and raised flashings.

Site Context:

The site has limited connectivity to the surrounding landscape.

Stage 1: Initial Assessment

Identify building on map, provide a description of significant roost features found during survey.

Stage 2: Further Survey

Further emergence/ dawn return survey to assess status of roost and how bats utilise the site. A minimum of **one** dusk emergence survey or dawn re-entry surveys undertaken.

Stage3: Likely Mitigation requirements

If no roosting bats are confirmed then works may proceed with suitable impact avoidance measures in place. Where possible mitigation should include the installation of bat roosting features within new proposals such as bat roost tiles and or bat boxes on retained trees.

BUILDINGS/ STRUCTURES OF VERY LOW HABITAT VALUE

Potential Roost Features:

Buildings with no bat roost features or buildings with bat roost features that through further detailed survey using endoscopes and binoculars have been shown as any of the following:

- Superficial features lacking sufficient depth or size to support roosting bats,
- Features with environmental conditions considered unsuitable for bats
- Suitable features that support no evidence of previous bat use.

Site Context:

The site may be isolated with no suitable commuting features, such as hedgerows, rivers and woodlands connecting it to the wider landscape.

Stage 1: Initial Assessment

Identify building on map, provide a description of features found during survey.

Stage 2: Further Survey

No further survey required

Stage3: Likely Mitigation requirements

No mitigation required, site enhancements could include the provision of suitable bat roosting features within the proposed development.

Table 1.2: Bat Tree Habitat Grading Criteria (adapted from BCT Guidelines Hundt 2012)
TREES CONFIRMED AS A BAT ROOST
<p style="text-align: center;">bats seen roosting during initial assessment survey Evidence suggesting recent use of the tree by bats (e.g. accumulations of droppings of a mixture of ages) Social chattering heard within a roost during survey (often on hot days or close to emergence time)</p> <p>Stage 1: Initial Assessment Identify tree on map, provide a description of significant roost features and or evidence found during survey</p> <p>Stage 2: Further Survey Further emergence/ dawn return survey to assess status of roost and how bats utilise the site.</p> <p>Stage3: Likely Mitigation requirements Any works that may impact upon the roost must be undertaken under EPSM licence.</p>
TREE OF HIGH HABITAT VALUE
<p>Potential Roost Features: Numerous potential bat roost features of high suitability such as woodpecker holes, rot holes, hollowing. Features that are able to support large roosts.</p> <p>Stage 1: Initial Assessment Identify tree on map, provide a description of significant roost features and or evidence found during survey</p> <p>Stage 2: Possible Further Works/Survey Where possible complete climbing inspection to assess features present in more detail.</p> <p>If evidence of bat roosting are found during climbing inspection further emergence/ dawn return survey to assess status of roost and how bats utilise the site.</p> <p>Stage3: Likely Mitigation requirements Works to trees confirmed as supporting roosting bats must be undertaken under EPSM licence.</p> <p>Trees with no confirmed roosts taking reasonable impact avoidance measures such as soft felling under the supervision of an ecologist.</p>
TREE OF MEDIUM HABITAT VALUE
<p>Potential Roost Features: Moderate numbers of potential bat roost features of moderate suitability such as areas of dense ivy or cracks and splits. Features may support smaller roosts of individual bats</p> <p>Stage 1: Initial Assessment Identify tree on map, provide a description of location and significant potential roost features. Assess potential impacts of proposals. If impacts cannot be avoided through mitigation further survey may be required.</p> <p>Stage 2: Possible Further Works/Survey Where possible complete more detailed inspection to assess features present in more detail.</p> <p>If evidence of bat roosting are found during inspection further emergence/ dawn return survey to assess status of roost and how bats utilise the site.</p>



<p>Stage3: Likely Mitigation requirements Works to trees confirmed as supporting roosting bats must be undertaken under EPSM licence.</p> <p>Works can proceed on trees with no confirmed roosts taking reasonable impact avoidance measures such as soft felling. If bats are found at any stage works should cease and advice sought</p>
<p>TREES OF LOW HABITAT VALUE</p>
<p>Potential Roost Features: Low numbers of potential bat roost features of low suitability such as areas of light coverings of ivy. Features may be of limited suitability to bats.</p> <p>Stage 1: Initial Assessment Provide a description of location and potential roost features. Assess potential impacts of proposals..</p> <p>Stage 2: Possible Further Works/Survey Where possible avoid impacts to trees, no further survey required.</p> <p>Stage3: Likely Mitigation requirements Works can proceed taking reasonable impact avoidance measures such as soft felling. If bats are found at any stage works should cease and advice sought.</p>
<p>TREES OF VERY LOW HABITAT VALUE</p>
<p>Potential Roost Features: Trees with no bat roost features or trees with bat roost features that through further detailed survey using endoscopes and binoculars have been shown as any of the following:</p> <ul style="list-style-type: none"> • Superficial features lacking sufficient depth or size to support roosting bats, • Features with environmental conditions considered unsuitable for bats • Suitable features that support no evidence of previous bat use. <p>These trees are often, but not always, immature or trees in good health.</p> <p>Stage 1: Initial Assessment Assess potential impacts of proposals and provide description of location.</p> <p>Stage 2: Possible Further Works/Survey No further survey required.</p> <p>Stage3: Likely Mitigation requirements No mitigation required.</p>

Bat Emergence Survey

2.3 Four suitably experienced surveyors were positioned at suitable locations to ensure that potential roosting features were visible on the buildings at the site (see Map 4). The surveyors watched and listened and recorded all bat activity at the site. The dusk emergence survey commenced 15 minutes prior to sunset and ran for approximately 2 hours after sunset, a level of survey in line with Bat Conservation Trust Guidelines (Collins 2016). During the survey equipment used included Wildlife Acoustics EM3 detectors and a batbox duet and Griffen detectors.



Survey Timings, Weather Conditions and Personnel

- 2.4 During the surveys a team of suitably experienced field surveyors were led by Andrew Bodey BSc honours ACIEEM bat licence (2015 -13096 - CLS-CLS). **Table 1.3** below provides further details.

Table 1.3: Bat Survey Date, Timings and Weather Conditions			
Survey	Survey Date	Survey Timing	Survey Weather
Preliminary bat survey	16/05/2017	12:00 – 16:00	18°C, 50%CC, Dry, light SW breeze
Dusk emergence survey	26/05/2017	20:39 – 22:54	S: 20 °C F: 16°C, S: 0% cloud cover F:) 0% cloud cover, S: dry F: dry, S: light SE breeze F: Light SE Breeze. Sunset 20:54

Survey Limitations

- 2.5 The preliminary bat survey was limited to a visual inspection of habitats and their potential for supporting bats. Often areas are present on building, such as gaps beneath tiles or within soffits, which cannot be assessed for evidence of roosting bats. In cases where potential roost features were accessible an Endoscope was used to search for evidence of bat using the feature such as live animals, accumulations of droppings and fur staining.
- 2.6 Some bat species, such as long-eared bats, generally emerge late from their roosts when light levels are low, this species also produces very quiet echolocation calls therefore these bats can be difficult to observe and record during bat surveys, leading to under-recording.
- 2.7 The findings of this report represent the opinion of a professional and suitably qualified ecologist they do not constitute professional legal advice. The client may wish to seek further legal interpretation of wildlife legislation cited in this document.

3.0 Results

Desk Study

- 3.1 An extended data search was undertaken for bats as they are wide ranging species. The closest known roost is a roost of unknown type located approximately 0.3km beyond the southern site boundary. The following species were recorded within a 5km radius of the site.

- A single record of Serotine Bat *Eptesicus serotinus*, the record was located approximately 1.5km south west of the site.
- Records of Daubenton's bat *Myotis daubentonii* the closest record was located approximately 1.2km south west of the site.
- 37 records of Natterer's bat *Myotis nattereri* the closest record was located approximately 1.2km south west of the site.
- A single record of Noctule bat *Nyctalus noctula*, the record is located at approximately 1.5km south west of the site.
- A single record of Nathusius pipistrelle bat *Pipistrellus nathusii* was located within 2km of the site. The closest record was located approximately 2.4km south west of the site.
- 34 records of common pipistrelle bat *Pipistrellus pipistrellus* were the closest record was located approximately 0.3km south west of the site.
- Records of Soprano Pipistrelle bat *Pipistrellus pygmaeus*, the closest record was located approximately 1.0km west of the site.
- 41 records of Brown long eared bat *Plecotus auritus*, the closest record is located approximately 1.3km south west of the site

Preliminary Bat Survey

- 3.2 The following section provides results of the preliminary bat survey at the site including an assessment of the buildings (as shown on **Map 2**), trees and general habitat at the site.

Nursing Home Building - External Description

- 3.3 The main section of the building comprises a three storey, brick built building with a predominately pitched and gable end roof with modern concrete pan roof and ridge tiles (**Figures 1 and 2**). Three large brick built chimney breasts are present within the roof. Two storey extensions are present on the southern and northern elevations and a single storey flat roofed out building also extends from the northern elevation. The building is predominately open at the eaves with a bitumen felt underlining extending beyond the walls (**Figure 3**). Small areas of soffit present on the eastern and western elevations. A modern two storey extension with a pitched and gable end roof design extends from eastern elevation of the building (**Figures 4 and 5**). The roof has modern clay roof and ridge tiles and two chimney breasts are present. The roof is open at the eaves with bitumen roof underlining visible (**Figure 6**). A further single storey flat roof extension is present on the eastern elevation of the two storey extension (**Figure 7**). The roof of the building is lined with bitumen felt.

Internal Description

- 3.4 Three separate voids are present within the main section of the building. A single large roof void is present above the modern two storey extension. **Map 3** shows the location of roof voids within the building.

Void 1

This void is located above the third storey section of the main building and runs east to west. The void is of pitch and gable end design with insulation lining the void floor (**Figure 8**). The roof tiles are underlined with bitumen felt and a large brick chimney breast is present within the centre of the void. The void was heavily cobwebbed along the ridge board located within the apex of the void.

Void 2

This small void is located above the two storey section of the main building and runs east to west along the northern elevation. The void is of pitch and gable end design with insulation lining the void floor. The roof tiles are underlined with bitumen felt. The void was heavily cobwebbed along the ridge board located within the apex of the void.

Void 3

This small void is located above the two storey section of the main building which runs north to south from the southern elevation. The void is of pitch and hip end design with insulation lining the void floor. The roof tiles are underlined with bitumen felt. The void was also heavily cobwebbed along the ridge board located within the apex of the void.

Void 4

This large void is located above the modern two storey section. The void is of pitch and gable design with rock wool insulation lining the void floor (**Figure 9**). The roof tiles are underlined with bitumen felt. The void was also heavily cobwebbed along the ridge board located within the apex of the void.

Cellar

A small cellar is located centrally within the building (**Figure 10**). The cellar has no external access and has been utilised for storage.

Outbuilding



The single storey outbuilding extends from the northern elevation of the main building. The building does not support a roof void as internal spaces are open to the asbestos roof (**Figure 11**).

Evidence of Bat Roosts

- 3.5 There was no evidence of roosting bats recorded during the internal or external inspections of the nursing home building.

Potential Bat Entrance/Exit Locations and Roost Features

- 3.6 The building supports low numbers of potential bat roost features. Gaps beneath missing and broken tiles were located on the western elevation of the modern two storey extension (**Figure 12**). Occasional gaps were also present within the underlining located at the eaves of the modern two storey extension building on the eastern elevation (**Figure 13**). A small gap was located within area of soffit on the eastern elevation of the main building (**Figure 14**), occasional minor gaps were also present beneath roof tiles. There were no obvious entrance or exit locations to the roof voids or cellar area, bats may use gaps beneath roof tiles to access holes that may be present within bitumen felt linings.

Garage Building - External Description

- 3.11 This building comprises a single storey, brick built building with a shallow single pitched roof lined with sheet asbestos (**Figure 15**). Windows were present on the eastern and northern elevations and a large timber door is present on the western elevation.

Internal Description

- 3.12 The building does not support any roof voids and with internal areas open to the sheet asbestos roofing (**Figure 16**). Internal areas are lit by daylight entering through windows present on the building.

Evidence of Bat Roosts

- 3.13 There was no evidence of roosting bats recorded internally or externally on the building.

Potential Bat Entrance/Exit Locations

- 3.14 There were no visible potential roost features for bats on the building and internal spaces were considered unsuitable for day roosting bats.

Tree Assessment

3.15 Trees located within the site and its boundaries were assessed for the presence of potential roost features. However on inspection there were no visible potential roost features on any of the trees within the site or its boundaries. Light coverings of ivy were present on pine trees located to north of the site and sycamore located beyond the southern site boundary however these areas of ivy were of insufficient density to offer suitably sheltered roosting locations for bats.

Foraging and Commuting Habitat Assessment

3.16 Trees and shrubs located within the boundaries of the site provide suitable sheltered corridors for commuting and foraging bats. The surrounding landscape is dominated by exposed areas of golf course and generally lacks extensive areas of optimal bat foraging and commuting habitat. Considering the limited habitat available to foraging and commuting bats small areas of tree line located along the railway to the north and within areas of recreation ground and golf course to the south may be utilised by local bat populations. Therefore boundary trees at the site may be utilised as a corridor between off site habitats.

Breeding Birds

3.17 The residential site building supports low numbers of gaps within soffits that may provide access to suitable locations for nesting birds. However at the time of survey no evidence of active breeding birds was present.

Dusk Emergence Bat Surveys

3.18 As a result of the preliminary bat survey further emergence bat survey was recommended for the nursing home building located at the site. Surveyor locations are shown in **Map 3**.

Dusk Emergence Survey 26/05/17 – Roosting bats

3.19 During the dusk emergence no bats were recorded emerging from the building.

Dusk Emergence Survey 26/05/17 – Foraging and commuting bats

3.20 During the dusk emergence survey a single species was recorded foraging and or commuting at the site.

Common pipistrelle bat: During the survey a total of 12 common pipistrelle registrations were recorded survey positions 1 and 2 located north east of the site. Bats were recorded passing at 21:26,

21:28, 21:32, 21:35, 21:38, , 22:07, 22:08, , 22:19 and 22:24. The majority of bats were heard and not seen possibly utilising northern boundary shrub and tree lines behind surveyor positions. Individual bats were seen foraging within open areas of grassland on three occasions at 21:25, 21:57 and 22:15. A further 13 registrations were recorded from survey position 3 located to the north west of the site. The bats were recorded passing at, 21:36, 21:40, 21:59, 22:01, 22:02, 22:05, 22:11,22:17 and 22:41. Individual bats were seen foraging to the west of the building on four occasions at 21:28, 22:10, 22:18 and 22:20. A total of 10 registrations were recorded from survey position 4 located to the south west of the site. The first registration was recorded at 21:29. The bat was seen passing from south to north along the western site boundary. Bat passes were recorded at 21:29, 21:32, 21:38, 21:47, 21:57, 22:01, 22:25, 22:27 and 22:29 the majority of bats were heard and not seen. Up to three individuals were recorded foraging over areas of hard standings within the site between 22:07 until 22:24.

4.0 Protected Species/Habitat Assessment

4.1 **Table 1.4** highlights the potential of the site to support the highlighted protected species and assess results of the preliminary bat survey undertaken at the site. Further consideration is given to the impacts the development is likely to have upon bats and their associated habitat.

Table 1.4: Assessment of the potential impacts on highlighted protected species and habitats within and adjacent to the development site			
Species	Main legislation and policy	Species or habitat assessment	Likely impact of development on species and or habitat
Bats- Preliminary bat survey	The Wildlife and Countryside Act (1981) (as amended) The Countryside and Rights of Way Act, 2000 The Natural Environment and Rural Communities Act (NERC, 2006) The Conservation of Habitats and Species	A total of eight bat species have been recorded within 5km of the site. Seven out of the eight species recorded were located beyond 1.0km from the site. The closest record was of common pipistrelle located approximately 0.3km from the site. There is potential for the majority of these species to utilise habitats on or surrounding the site. No evidence of roosting bats was recorded during the preliminary bat survey however the nursing home building has low numbers of gaps beneath tiles that offer potential	The proposals require the demolition of the extension buildings present at the site. In the absence of mitigation there is potential for high impacts upon roosting bats should bats utilise suitable roosting locations present within the nursing home building and works are undertaken in these areas. Potential Impacts include habitat loss and



	<p>Regulations (2010).</p>	<p>roosting locations for bats. Considering the low number of nearby records, the lack of bat roost evidence at the site and the low number of suitable bat roost features the nursing home building is considered to be of low habitat value for roosting bats.</p> <p>The garage building lacked potential roost features for bats. No evidence of roosting bats was recorded during the survey. Considering the lack of evidence and external potential roost features the garage building is considered to be of very low habitat value for roosting bats.</p> <p>Trees located within the site and its boundaries did not support suitable roosting locations for bats. All trees were considered of very low habitat value for roosting bats.</p> <p>The majority of the site is dominated by amenity grasslands, hard standing and buildings. These habitats support low invertebrate species diversities and are of limited value for foraging bats. However the mature trees and shrubs located along the site boundaries and beyond do offer suitable linear features providing sheltered areas for foraging and commuting bats. The site has connectivity between surrounding habitats and may be utilised by bats to commute between off site habitats. The site is considered to offer low – moderate habitat value for foraging and commuting bats.</p>	<p>possible injury or killing of bats during demolition works.</p> <p>Further recommendations for survey were given.</p> <p>Trees present within the site and its boundaries do not offer suitable roosting locations for bats. The proposed works will have no significant impact upon tree roosting bats.</p> <p>No further recommendations have been given</p> <p>The proposals include the construction of new residential properties in close proximity to boundary habitats. These boundary habitats are considered suitable for foraging and commuting bats. In the absence of mitigation there is potential for a low impact on foraging and commuting bats through lighting at the site.</p> <p>Further recommendations for mitigation have been given section 5.0</p>
<p>Breeding Birds</p>	<p>The Wildlife and Countryside Act (1981) (as amended)</p> <p>The Countryside and Rights of Way Act, 2000</p> <p>The Natural Environment and Rural Communities</p>	<p>The nursing home building support low numbers of gaps beneath tiles and within soffit that may provide suitable location for nesting birds. During the survey no evidence of active nesting birds were recorded. The building is considered of high habitat value for breeding birds.</p>	<p>The proposals require the demolition of the residential building. In the absence of mitigation there is potential for high impacts on breeding birds if present within the building.</p> <p>Further recommendations for mitigation have been</p>



	Act (NERC, 2006)		given in section 5.0
Dusk Emergence Survey	<p>Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).</p> <p>Schedule 2 of the Conservation of Habitats and Species Regulations 2010.</p>	<p>During the emergence survey at the site no bats were recorded emerging from the nursing home building. Common pipistrelle was the only species of bat recorded at the site. All registrations were recorded outside of typical emergence time of this species suggesting the bats may roost some distance from the site.</p> <p>Much of the site is of low value foraging and commuting habitat comprising managed amenity grassland, buildings and hard standings. However during the survey low - moderate levels of activity were recorded with a single species of bat using the site and its surroundings. Common pipistrelle bats regularly utilised the boundary treelines and sheltered areas within site. Up to three individual foraging bats were recorded at one time.</p>	<p>The proposals require the demolition of extension buildings at the site. There were no bats recorded emerging from potential roost features located on the buildings therefore it is considered these features are not used by bats. There will be no significant impacts to roosting bats during demolition of the extensions on the site or works to the main building.</p> <p>Further recommendations for mitigation have been given in section 5.0</p> <p>Areas of boundary treeline provide sheltered areas for foraging and commuting common pipistrelle bats. There is potential for low impacts upon foraging and commuting bats. Map 4 shows location of potential lighting impacts.</p> <p>Further recommendations for mitigation have been given in section 5.0</p>

5.0 Recommendations

Bats

5.1 During the Preliminary Bat survey the onsite building was considered of low habitat value for roosting bats. In line with Bat Conservation Trust Guidelines (Collins 2016) a single dusk emergence survey was undertaken on the building. During the dusk emergence survey no bats were recorded roosting within the onsite buildings. Low to moderate levels foraging and commuting activity was recorded within the site and its boundaries. In order to minimise impacts on foraging or commuting bats it is recommended a bat sensitive lighting scheme be incorporated into the proposals, guidance for this scheme is provided by the Bat Conservation Trust within their guidance document Bats and Lighting

(Stone, 2013). The lighting should avoid impacts to retained boundary trees and areas of dense scrub located off site to the east. **Map 4** shows approximate location of potential lighting impacts to foraging and commuting bats at the site. Further enhancements should include the erection of two bat roost boxes within retained trees at the site. Where possible bat roost features, such as bat roost tiles should be incorporated within the proposed new buildings. The boundary habitats should be enhanced with native species plantings creating denser areas ensuring these habitats remain suitable as foraging and commuting routes maintaining connectivity between off site habitats.

Breeding Birds

- 5.2 During the survey at the site low numbers of gaps were present beneath tiles that may offer suitable nesting locations for birds. If demolition proceeds during the bird nesting season, which runs from late April – September inclusive, then a check for breeding bird activity should be undertaken by a suitably qualified ecologist no longer than 24 hours prior to demolition. If nesting birds are confirmed the nest should remain undisturbed until young have fledged and the nest is no longer in use. To compensate the loss of any potential nesting habitat it is recommended two sparrow terrace bird boxes should be erected, where possible, on new buildings within the site in order to compensate for the loss of nesting bird opportunities.

6.0 Conclusions

During the preliminary bat survey low numbers of potential roost features were identified on the nursing home building. Further bat emergence surveys confirmed the absence of roosting bats within the nursing home building. The mitigation and enhancement recommendations given regarding bats and breeding birds will minimise potential impacts and ensure the favourable conservation status of bats and birds is maintained during and after the proposed works at the site.

FIGURES



Figure 1: Southern elevation of main building



Figure 2: Northern elevation of the main building



Figure 3: Areas of open eave and soffit within eastern gable end



Figure 4: Northern elevation of modern two storey extension



Figure 5: Southern elevation of modern two storey extension



Figure 6: Eaves extending beyond the wall



Figure 7: Northern ele. of the single storey flat roof extension



Figure 8: Internal spaces of roof void 1



Figure 9: Internal spaces of roof void 4



Figure 10: Internal space of Cellar



Figure 11: Internal space of outbuilding



Figure 12: Gaps located beneath missing tiles



Figure 13: Gap within felt underlining at eaves



Figure 14: Gap located within soffit on eastern ele. of building



Figure 15: Northern elevation of garage building



Figure 16: Internal spaces of garage building

REFERENCES

Collins J. (ed.) (2016) *Bat Surveys for Professional Ecologists, Good Practice Guidelines (3rd Edition)* Bat Conservation Trust, London

Stone. E L (2013) *Bats and lighting – overview of current evidence and mitigation guidance*, Bat Conservation Trust

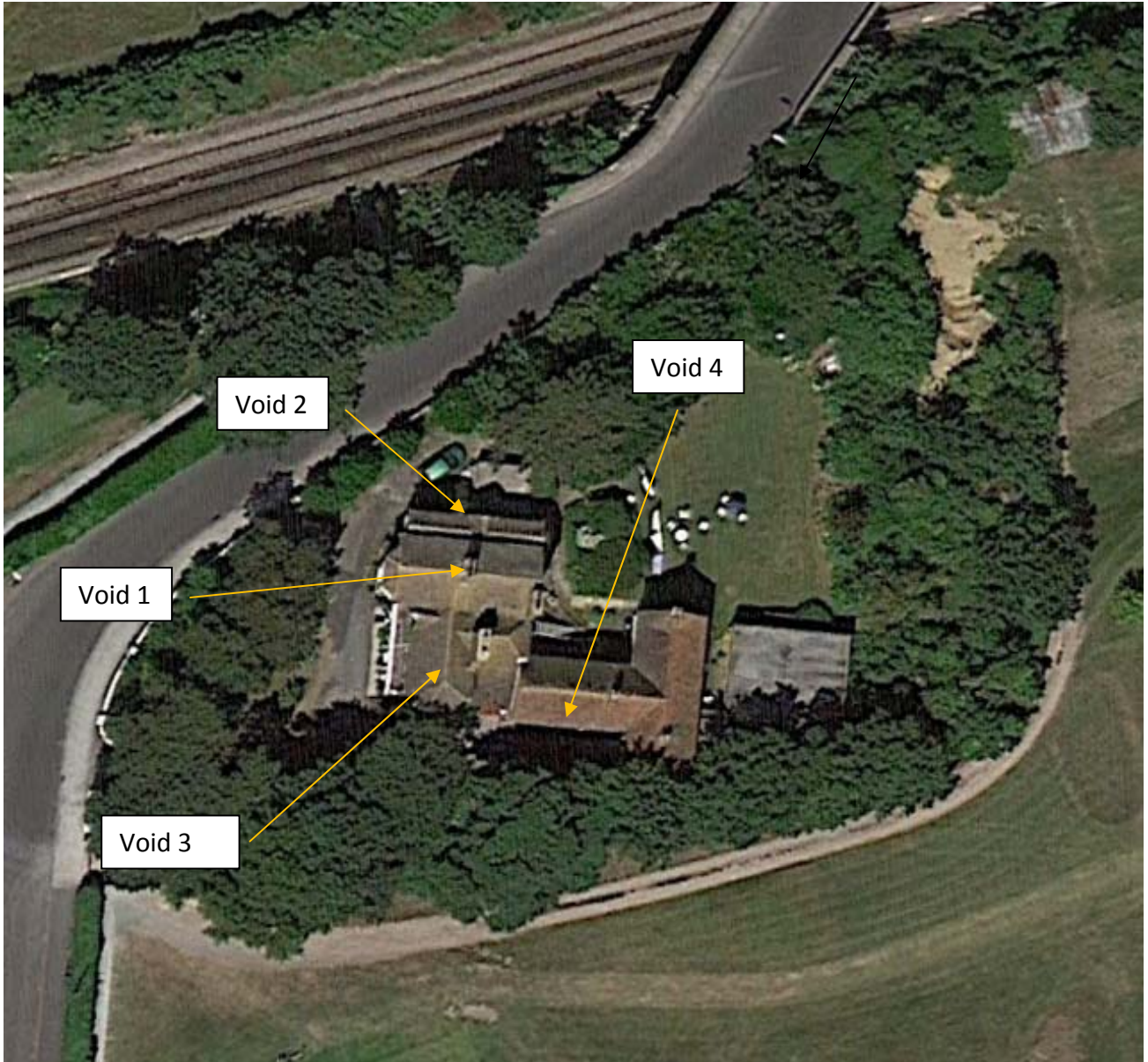
MAP 1 – Site Location (approximate site boundary shown in red)



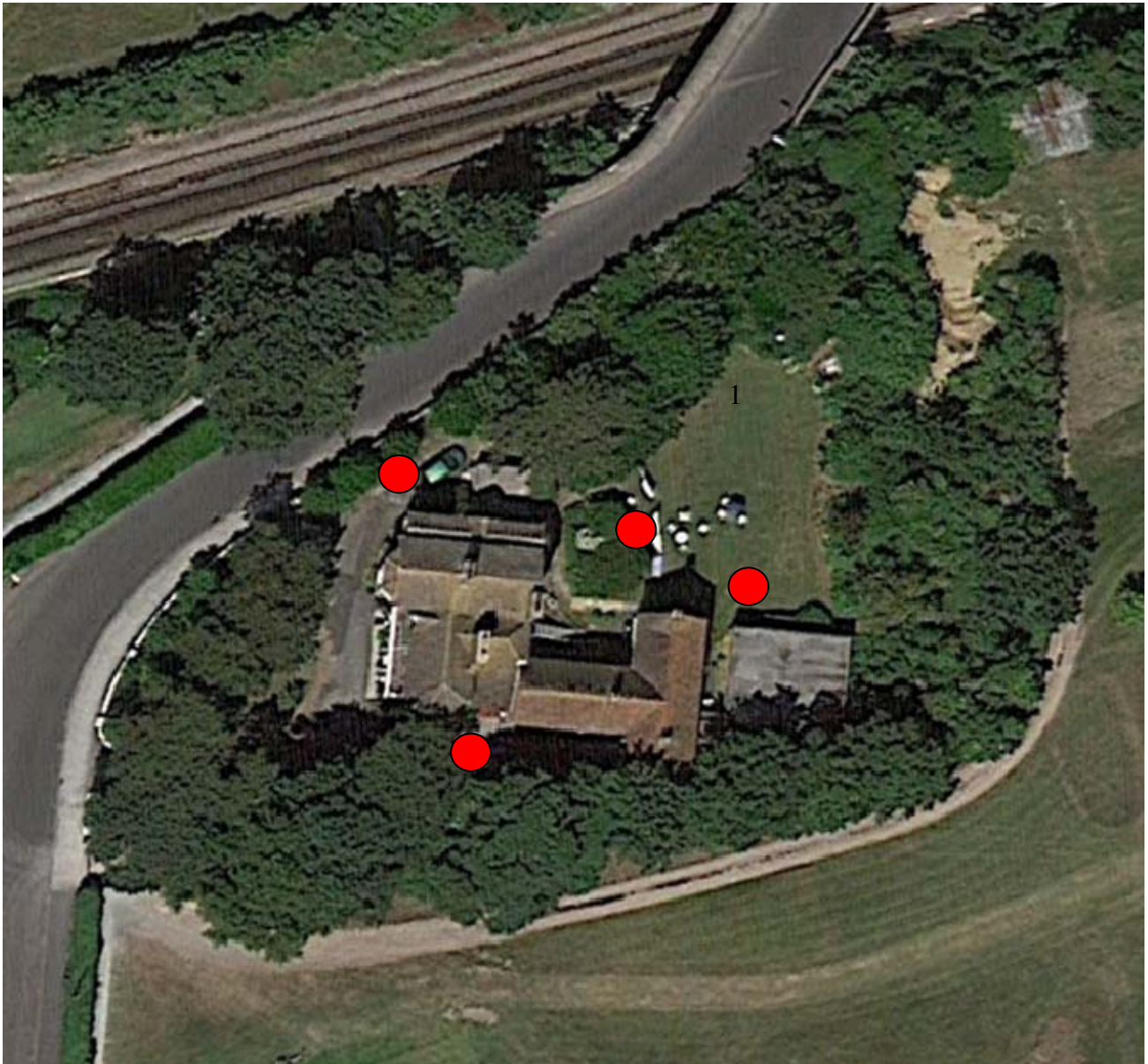
MAP 2 – Building locations



MAP 3 – Roof Void locations



MAP 3 – EMERGENCE SURVEY, SURVEYOR POSITIONS



MAP 4 – LOCATION OF POTENTIAL LIGHTING IMPACT

Avoid lighting impacts to mature boundary trees and scrub that provide suitable bat foraging and commuting habitats. The yellow line shows areas sensitive to potential lighting impacts from the proposed development .



ANNEX 1-LEGISLATION

The following details legislation covering the protection of UK species highlighted in this report, the information provided should be taken as a general guide, rather than comprehensive. In all cases readers should consult the relevant legislative documents in full and where necessary obtain further legal advice.

Bats

In England & Wales all bat species are protected under **Annex II EC Habitats Directive 92/43/EEC**. This European legislation is implemented in the UK by the **Conservation (Natural Habitats, &c.) Regulations 2010**.

In addition bats are afforded protection under The Wildlife and Countryside Act 1981 (as amended) listed on schedule 5.

The above legislation makes it illegal to carry out the following activities:

- deliberately capture, injure or kill a bat
- deliberately disturb a bat, including in particular any disturbance which is likely to:
impair the bats ability to survive, breed, reproduce or nurture their young.
Impair their ability to hibernate or migrate, or
To affect significantly the local distribution and or abundance of the species
- Damage or destroy a breeding place a breeding site or resting place of a bat
- Possess, control, transport exchange or sell a bat or parts of a bat dead or alive.

Additional conservation significance is afforded to four species of UK bats. Barbastelle, bechstein's and greater and Lesser horseshoe bats, These species are listed on **Annex II EC Habitats Directive 92/43/EEC**. The conservation of these species requires the designation of Special Areas of Conservation (SAC).

Activity that would result in the above offences being committed would require a EPS licence to avoid committing an offence. Natural England has powers to grant a licence

- preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment; or
- for the purpose of health and safety

Natural England can only issue a licence if it is satisfied that the activity meets one of the above purposes and is also satisfied of the following;

- there is no satisfactory alternative; and
- that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

In order to satisfy the above three tests Natural England and the LPA must be provided with survey information of sufficient quality. Without the survey information a licence/planning application cannot and should not be assessed or issued.

Referenced from Bat Conservation Trust Guidelines (Collins 2016)

Birds

The Wildlife and Countryside Act 1981 protects all birds, their nests and eggs, thus it is an offence, with certain exceptions to intentionally:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.
- Have in one's possession or control any wild bird (dead or alive) or any part of a wild bird which has been taken in contravention of the Act or the Protection of Birds Act 1954.
- Have in one's possession or control any egg or part of an egg which has been taken in contravention to the Act. This includes items taken or killed before the passing of the Act.

- Have in one's possession or control any live bird of prey of any species in the world (with the exception of vultures and condors) unless it is registered and ringed in accordance with the Secretary of State's regulations.
- Have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered (and in some cases ringed) in accordance with the Secretary of State's regulations.
- Disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.