



Redevelopment of Land for Residential Use

Report Title: Inspection & Assessment in Relation to Bats & Breeding Birds

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Executive Summary

As part of a planning application regarding 15-17 Oxford Road and associated land, Southport, a daytime inspection and assessment in relation to bats and breeding birds was undertaken by Tyrer Ecological Consultants Ltd during September 2019. The survey was commissioned by Lulworth Developments Ltd and it is understood that proposals entail the demolition of the existing building, followed by redevelopment of the land for residential use (see Figure 1).

Bats: Inspection of the building contained within the application site revealed a series of potential roost features (PRFs) sited across the building including:

- Gaps at soffit
- Gaps at hanging tiles
- Crevices in brickwork

Whilst no evidence of use was located upon appraisal, given the variety of PRFs, the structure is categorised to possess 'moderate' roost suitability in line with Bat Conservation Trust. *Recommendations in relation to further surveys at 15-17 Oxford Road are located through sections 9.1-9.2.*

Enhancement for bats may be incorporated into the proposals as per Appendix II, if so required.

All trees contained within the survey boundary are noted to be absent of Potential Roost Features and consequently categorised to possess 'negligible' bat roost suitability, in line with BCT guidelines.

Breeding Birds: Relative to Schedule 1-listed bird species, no evidence or suitability for breeding Schedule 1 species (e.g. Barn owl (*Tyto alba*)) exists across the full extent of the survey area.

Trees and scrub across the survey area shows suitability for a range of common bird species' nesting preferences. The presence of active nests on site within the bird breeding season (March – August inclusive) is thus considered likely. *It is therefore recommended that clearance operations are timed outside the nesting bird season unless it may be conclusively be confirmed by a suitably qualified ECoW that nesting birds are absent.*

Enhancement for nesting birds may be incorporated into the proposed development as per Appendix II, if so required.

Incidental observations: Field Woundwort was noted as locally frequent to the south-west of the survey area. The species is listed as 'rare' on the Sefton Coast (Smith, 2019) and is a red data-book species, listed as 'Near-threatened' in England (Stroh et al, 2014). *In light of the proposed site plan, it is the opinion of Tyrer Ecological Consultants that on-site mitigation/compensation would not be the most productive way forward. It is therefore recommended that a commuted sum is made to a local conservation body such as Lancashire Wildlife Trust that will go towards off-site compensation.*

Three invasive plant species were located across the application site including Himalayan Cotoneaster, Hollyberry Cotoneaster and Montbretia. *Recommendations relative to the eradication of these species has been given within section 9.7.*

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1.0 Introduction & Reason for Survey

- 1.1 As part of a planning application regarding 15-17 Oxford Road and associated land, Southport, a daytime inspection and assessment in relation to bats and breeding birds was undertaken by Tyrer Ecological Consultants Ltd during September 2019. The survey was commissioned by Lulworth Developments Ltd and it is understood that proposals entail the demolition of the existing building, followed by redevelopment of the land for residential use (see Figure 1).
- 1.2 As part of the Local Authority's Planning Policies ecological surveys are generally required, particularly where a specially protected species is or may be present and could be affected by the proposals for which the application seeks consent.



Figure 1: Proposed site plan

- 1.3 The aim of the inspection was to ascertain if the building and land is of value to bats and breeding birds; if it was found to be suitable for bats or signs of use was located then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August. If bat/s or their roost/place of rest/shelter is subsequently affected by the work then a European Protected Species Mitigation Licence would be required to proceed with the development.
- 1.4 The optimum time to investigate buildings for evidence of a bat roost is May – August, however that is not to say they cannot be inspected and assessed outside of that time and frequently the results can be conclusive, which can save time and expense for planning applicants but it should be borne in mind that equally the inspection can be inconclusive.
- 1.5 In addition to bats the site was appraised relative to breeding birds.

2.0 Site-relevant Legislation

- 2.1 All British bats and their **roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2017 (as amended). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2017 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.
- 2.2 The National Planning Policy Framework (NPPF) has replaced the existing Planning Policy Guidelines. (PPG's) In relation to wildlife PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF in relation to species and habitats are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development. The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation.

This is supported by a guide to good practice entitled 'Planning for Biodiversity and Geological Conservation: Building in Biodiversity' in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependant upon built structures for survival and that roosts can be easily incorporated into existing and new developments/conversions to benefit these species.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

"If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused."

2.3 Use of Buildings by Bats

- a) Summer breeding roost.
- b) Hibernation.
- c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats & Species Regulations 2017 (Regulation 41) the term roost is not used but refers to "a *breeding site or resting place of such an animal*" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

- 2.4 All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected under the Wildlife & Countryside Act 1981 (as amended). Birds listed on Schedule 1 e.g. Barn owls (*Tyto alba*) are afforded a greater level of protection. Where nesting birds are present then work should be timed outside of the nesting season (March – August) so as to avoid disturbance.

Guidance for Local Authorities: Extract from Office of the Deputy Prime Minister:
 Circular 06/2005

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.”

3.0 Protected Species in Merseyside

- 3.1 Up to nine bat species have been recorded in Merseyside, most of which use built structures, notably occupied residential properties for roosting. The most frequently encountered species is the Common Pipistrelle bat (*Pipistrellus pipistrellus*); its abundant status in Merseyside is mirrored throughout the UK.
- 3.2 The number of breeding Barn owls (*Tyto alba*) within rural Merseyside is moderately high across areas of countryside where suitable environs exist; they are constantly under threat from loss of habitat and nesting opportunities.

4.0 Survey Methodology

- 4.1 BCT Survey Good Practice Survey Guidelines state:-

“The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive.”

- 4.2 The daytime survey was conducted on 20th September 2019 when the building to be demolished was inspected for potential places that may be of value to bats and to determine if evidence of use was present. Several small loft voids were present internally, though typically small in height and extent; the majority of ceilings were noted to be vaulted throughout the complex. The exterior elevations of the buildings were investigated from ground floor level with the aid of high powered torch for places that are frequently used by bats as roosts or as access into roost chambers.
- 4.3 Trees were inspected from ground level with use of high powered torchlight and close focussing binoculars for any feature that may favour bats including cracks, crevices, fissures and holes present across parts of trees.
- 4.4 The survey was conducted by the following surveyor:

Table 2: Surveyor credentials

Name	Description
Joshua Styles BSc. ACIEEM AMRSB	Ecologist and botanical specialist with a FISC Level 6. Mr Styles is also an accredited agent on the Class 2 Natural England bat license of Mrs. K. Wildling.

4.5 Criteria for roost assessment are based upon the following determinant which is based upon the Bat Conservation Trust 'Bat Surveys: Good Practice Guidelines' (2016) (Figure 2):

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

^a For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
^b Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
^c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Figure 2: BCT guidelines extract

4.6 A data search of localised bat records was not sourced, as a sufficient level of information on which to establish the potential use of the site by bats could be gathered from the daytime site visit. The UK Guidelines for Assessing and Using Biodiversity Data (CIEEM, 2016) state: *“where the development site is limited to a single building or is otherwise very small and comprises structures of low potential value for bats, data searches may be of limited value in terms of the information they can provide”*.

Furthermore taking into consideration the nature of the immediate habitat bat species that are likely to be present can be anticipated.

4.7 The results, conclusions and recommendations are based on a number of factors i.e.

- Practical experience of surveyor
- Knowledge of bat/bird species relevant to the site location and geographical range
- Nature of the immediate and surrounding habitat in relation to foraging/hunting opportunities
- Condition of the building
- Presence/absence of a loft space
- Presence/absence of roost/nesting potential
- Value of roost/nesting potential – if present

4.8 An assessment of the building and site in general in relation to breeding birds was conducted in tandem with the investigation for bats, when birds are at the beginning of their breeding season (March-August inclusive). External elevations of the property were inspected for historic signs of birds that show a high dependency upon built structures.

5.0 Limitations

- 5.1 It is considered that there are no significant constraints associated with the inspection and assessment of the survey area.

6.0 Desk Study Results

- 6.1 The proposed development site is located off Oxford Road, Southport, within a relatively urbanised area, with little in the way of green spaces in the immediacy of the site. The survey area is set at approximately 1.7 kilometres south-west of Southport town centre, currently comprising of an expanse occupied largely by hardstanding incorporating the existing building complex. Areas of semi-improved acid grassland, scattered trees and introduced shrub exists within the survey boundary, namely to the north-east, whilst similar development is present to all aspects.
- 6.2 The contiguous landscape to all aspects continues to the same nature of the immediate habitat with further favourable environs including the Southport marine Lake at approximately 1.4 kilometres to the north-east and areas contained within the Ribble & Alt Estuaries & Sefton Coast designated sites. These previously identified habitats that occur in proximity with the survey area can be considered as being of (broadly) low-moderate ecological value for many of the species for which the survey was undertaken (i.e. bats and breeding birds), subject to them being present in the locality (see Figure 3). Where good quality habitat is present close to buildings then the percentage use of those buildings, by bats/birds increases given that roost/nest opportunities are available and vice versa.

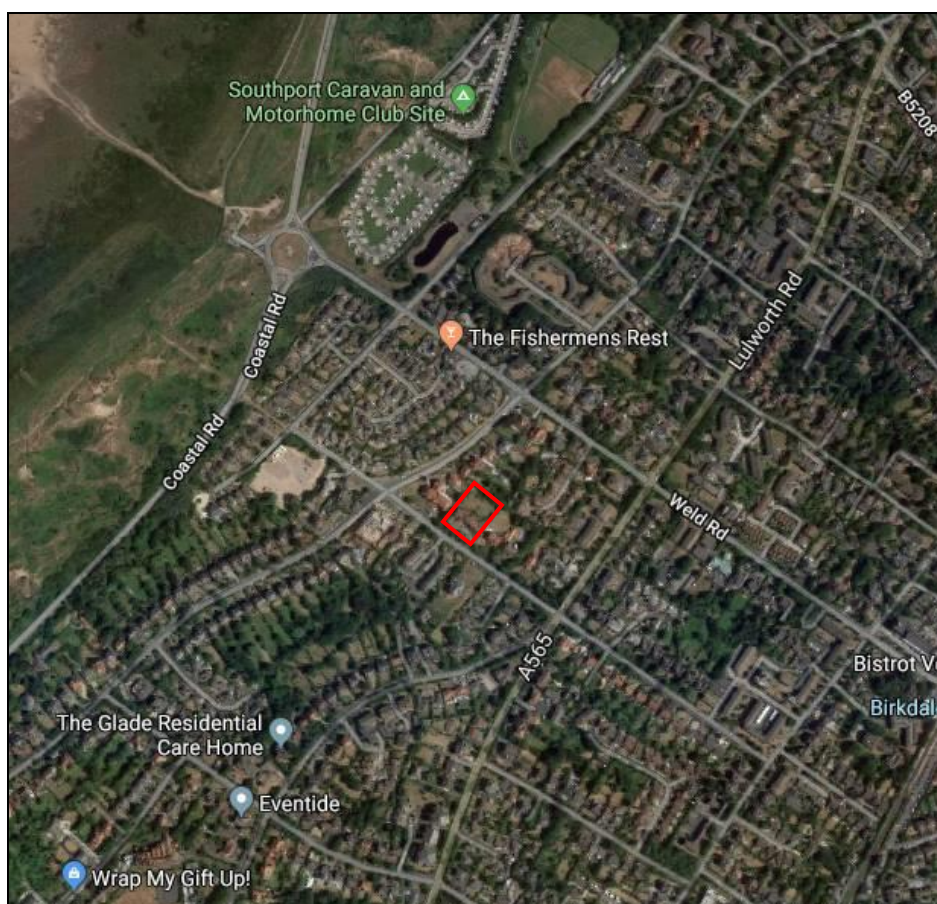


Figure 3: Approximate position of the study site within the contiguous landscape

- 6.3 An online search of Magic Maps revealed an absence of granted EPSMLs within a 3 kilometre radius of the site.

7.0 Field Study Results

Bats

- 7.1 **Building:** The main building at 15-17 Oxford Road comprises a large, multi-story, rectangular structure, consisting of two historically amalgamated structures. It is of brick construct with a tile multi-hipped roof with pitch elements of the approximate dimensions 47 metres x 12 metres x 11 metres. The property is currently unoccupied and defunct of any former functionality.
- 7.2 Internal inspection found occasional loft voids exist throughout the property where ceilings are not entirely vaulted and consist of spaces of no more than 1.5 metres in height. Loft spaces were all highly restrictive, cobwebbed and thus not suited to the typical breeding/roosting requirements of loft-dwelling species of bat such as the brown long-eared (*Plecotus auritus*). Furthermore, no evidence of this species group was located upon appraisal.
- 7.3 Underfelt of any kind is present immediately beneath roofing slates. Underfelt, where present, may significantly improve the probability of occupancy by crevice-dwelling species of bat such as the common pipistrelle (*Pipistrellus pipistrellus*), providing a roost space between roofing material and underfelt, provided ingress opportunities exist. No evidence of crevice-dwelling species was identified at the time of the survey, though this is frequently the case given the cavity-inhabiting nature of this species/group.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony, but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

- 7.4 External inspection of the building found numerous ingress/egress opportunities across all aspects of the stable building. Potential Roost Features (PRFs) took the form of the following:
- Gaps under soffit
 - Gaps under hanging tiles
 - Crevices in brickwork
- 7.5 On the basis of these identified PRFs, the stable building has consequentially been categorised to possess 'moderate' roost suitability for bats, in line with BCT guidelines.
- 7.6 **Trees:** All trees were found to be absent of any Potential Roost Feature such as extensive holes, cracks, crevices or fissures. As such, all trees that exist within the confines of the survey area are determined to possess 'negligible' bat roost suitability, in line with current BCT guidelines.

Breeding Birds

- 7.7 No historic nests have been identified on site; however trees and scrub on site constitute viable nesting platforms for a range of common bird species. The presence of nesting birds within the breeding season (March-August) is thus considered to be likely.

7.8 No areas considered to be suitable for the breeding habits of any Schedule 1 WCA-listed species were identified on site and no evidence of such species was located across the full extent of the survey area.

8.0 Incidental Observations

8.1 One species of conservation importance was located across the survey area in the form of Field Woundwort (*Stachys arvensis*) (see Figure 4). The Sefton Coast inventory (Smith, 2019) describes the species as 'Rare' on the Sefton Coast, whilst the species is also on the English red data-book, listed as 'Near-threatened'. This is a species of local conservation importance.

8.2 Paragraph 175 of the National Planning Policy Framework gives that "*When determining planning applications, local planning authorities should apply the following principles: a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused*". Appropriate measures relative have thus been recommended relative to the loss of Field Woundwort.

8.3 A total of three invasive plant species were incidentally observed across parts of the application site (see Figure 4) in the form of Hollyberry Cotoneaster (*Cotoneaster bullatus*), Himalayan Cotoneaster (*C. simonsii*) and Montbretia (*Crococsmia x crocosmiiflora*).

8.4 Natural England & DEFRA (2014) issue the following advice regarding invasive (plant) species:

'You must not plant in the wild or cause certain invasive and non-native plants (all species listed under Schedule 9(Part II) WCA 1981) to grow in the wild. This can include moving contaminated soil or plant cuttings. You can be fined or sent to prison for up to 2 years.'



Figure 4: Approximate positions of Field Woundwort (yellow), Montbretia (red), Himalayan Cotoneaster (blue) and Hollyberry Cotoneaster (orange)

9.0 Conclusions & Recommendations

9.1 From the survey results it can be concluded that the building at 15-17 Oxford Road, Southport, pertains to a 'moderate' categorisation with regards to bat roost suitability. This is in line with existing BCT guidelines and is concluded on the basis of identifiable PRF's.

Based upon this categorisation, it is recommended that two dusk/dawn emergence or/and dawn re-entry surveys are conducted in the main active season of bats (May - August) in order to establish if the building is being used by bats and if so identify the species, abundance, roost locations and flight lines following emergence/re-entry.

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

^a Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.

^b Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

Figure 5: BCT extract

NB: *Where more detailed bat surveys are recommended, following an initial investigation, then Local Authorities on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e. by conducting dusk/dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2017. Therefore it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.*

- 9.2 It should be noted that where bat/s or their roost/place of rest/shelter will be affected by the proposed works, then to allow developmental works at the site to legally commence, an application for European Protected Species Mitigation Licence (EPSML) and subsequent granting of a licence will be required. Notwithstanding the granting of a licence, works that would affect a roost cannot take place if a maternity colony is in occupation. It should also be noted that before an EPSML can be applied for all Planning issues, including Consent and any pre-commencement Planning Conditions relative to bats, should be resolved.

Natural England provides information and guidance about EPSML and the following extract is included in that guidance:-

If you intend to apply for a licence for development you are advised to seek the guidance of a consultant ecologist. Natural England's view is that:-

"A licence is needed if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under the Conservation of Habitats & Species Regulations 2017 (as amended)".

If the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence being committed then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If European protected species are found, cease the work until you have assessed whether you can proceed without committing an offence.

A licence should be applied for if offences are unavoidable and the work should not be re-started until a licence is obtained.

The application should be completed by the developer and a consultant ecologist. The ecologist will need to be able to demonstrate to the satisfaction of Natural England that they have the relevant skills and knowledge of the species concerned.

- 9.3 Enhancement for bats as per Appendix II may be incorporated into the proposals if so required.
- 9.4 Potential nesting platforms for a range of common bird species are available on site by way of trees and scrub and the presence of nesting birds within the breeding season is considered likely. It is therefore recommended that clearance operations are timed outside of the nesting period (March-August inclusive) unless it can be conclusively determined by a suitably qualified ecologist that nesting birds are absent.

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- 9.5 To improve opportunities for nesting birds on site, enhancement for nesting birds may be incorporated into the new development as per Appendix II, if so required.
- 9.6 Relative to the identified presence of red-listed Field Woundwort, in light of the proposed site plan, it is the opinion of Tyrer Ecological Consultants that on-site mitigation/compensation would not be the most productive way forward. It is therefore recommended that a commuted sum is made to a local conservation body such as Lancashire Wildlife Trust that will go towards off-site compensation.
- 9.7 With regards to identified invasive species, it is recommended that the identified invasive plants are eradicated from the site by a suitably qualified invasive species ecologist. Following eradication, any spoil removed off site must be treated as controlled waste and disposed of at a landfill authorised to accept such refuse.

10.0 Bibliography

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Appendix I: Site Photographs



Plate 1: Front elevation of the property at 15-17 Oxford Road



Plate 2: Rear elevation of the surveyed property

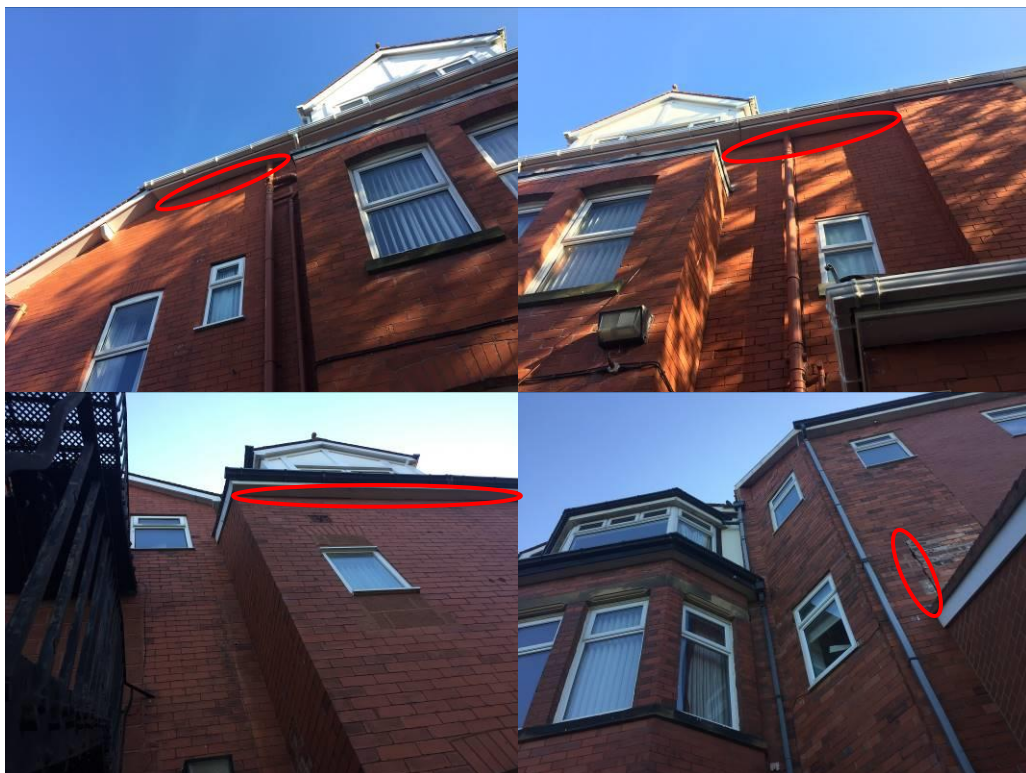


Plate 3: Gaps in soffit and brickwork



Plate 4: Loft voids indicative





Plate 5: General character of garden and trees pictured

Appendix II: Biodiversity Enhancement

Enhancement for Nesting Birds

The 'Sparrow Terrace' has been designed to help redress the balance of falling house sparrow numbers. The current UK population is half what it was in 1980 and this is thought to be due to habitat destruction and lack of suitable nesting spaces. Sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families.

The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of agricultural buildings such as barns.

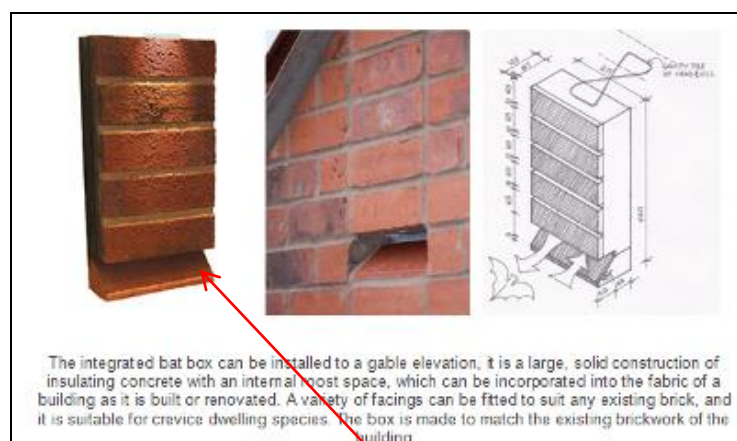
<http://www.nhbs.com/title/174850/1sp-schwegler-sparrow-terrace>



Bats

There are a number of options when enhancing a building for crevice-dwelling bats; such forms of enhancement replicate crevice situations that are used by species including Pipistrelle bats; three are shown below. The roost(s) would be permanent and dedicated for bats.

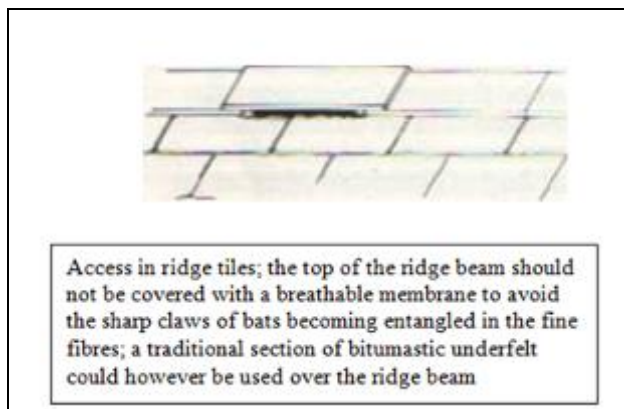
1.



The integrated bat box can be installed to a gable elevation, it is a large, solid construction of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. A variety of facings can be fitted to suit any existing brick, and it is suitable for crevice dwelling species. The box is made to match the existing brickwork of the building.

When ordering it is important to ensure that the landing platform surface is coarse to allow bat to alight before entering the bat box

2.



3.



1FQ Bat Roost - designed specifically to be fitted on the external wall of a house, barn or other building. The shape and design make it equally attractive to bats as a roost or a nursery. It is also pleasing to the human eye, an important consideration. Easy to attach to most types of walls, it features a special porous coating to help maintain the ideal temperature inside. It requires no maintenance or cleaning.