



PROPOSED DEMOLITION, CONVERSION AND SITE REDEVELOPMENT

Report Title: Bats - Dusk & Dawn Survey Results

Address: Gamford Farm, Gamford Lane, Rossett, LL12 0EW

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Document Title	Bats - Dusk & Dawn Survey Results
Prepared for	Appleton Deeley Planning and Landscape
Prepared by	Tyrer Ecological Consultants Ltd

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Executive Summary

As part of a proposed planning application concerning Gamford House, Wrexham and a number of derelict agricultural and workshop outbuildings, Tyrer Ecological Consultants Ltd were commissioned by Appleton Deeley Planning and Landscape during April 2019 to undertake a suite of dusk and dawn surveys for bats. The surveys adhered to recommendations within the previously submitted Preliminary Ecological Appraisal (PEA) issued by Tyrer Ecological Consultants Ltd in December 2018. The aforementioned document recommended bat activity surveys on six buildings which were categorised between 'Low' and 'Medium' bat roost potential in accordance with current Bat Conservation Trust (BCT) guidance. The PEA is attached (see Appendix I) - see 'Extract 1' below from the PEA.

Four surveys comprising dusk and/or dawn timing periods were undertaken between May 13th and June 14th 2019 (see Table 1) which respectively covered Building(s) 1, 2, 3, 5, 6 and 9. The number of surveys and surveyors were adequate relative to the roost potential that was initially identified per building i.e. between 'Low' and 'Moderate'. Surveyors were positioned so that all elevations on those building were covered. A dusk and dawn survey took place on all six buildings.

Bats: The survey results gathered by Tyrer Ecological Consultants Ltd in 2019 identified that four of the buildings at Gamford Farm are being used by singular/small numbers of Common Pipistrelle (*Pipistrellus pipistrellus*) bats for the purposes of a 'day roost'. Three bats were observed emerging respectively from Building(s) 1, 2 and 3 during the first dusk survey, with activity consistently observed by the same species on site thereafter. Two bats were observed emerging from Building 6 during the second dusk survey, with activity observed thereafter. One bat was observed re-entering Building 6 during the second dawn survey, via the open 'mezzanine' upper floor whereby it entered a crevice at the ridge beam.

Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) describe a 'Day roost' as 'a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer'. The permanent destruction, obstruction or modification of a bat roost(s) will need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation.

A European Protected Species Mitigation Licence (EPSML) will be required from Natural Resources Wales to legally destroy a place that is used for breeding, rest or shelter (roost) by bats, however, before a licence can be applied for all planning issues need to be resolved. Indicative mitigation is proposed in section 7.0.

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Appendix I - Preliminary Ecological Appraisal - Tyrer Ecological Consultants Ltd (Dec 2018)

1.0 Introduction & Reasons for Survey

- 1.1 As part of a proposed planning application concerning Gamford House, Wrexham and a number of derelict agricultural and workshop outbuildings, Tyrer Ecological Consultants Ltd were commissioned by Appleton Deeley Planning and Landscape during April 2019 to undertake a suite of dusk and dawn surveys for bats. The surveys adhered to recommendations within an earlier Preliminary Ecological Appraisal (PEA) and report issued by Tyrer Ecological Consultants Ltd that was issued in December 2018, recommending bat activity surveys on six buildings categorised between 'Low' and 'Medium' bat roost potential in accordance with current Bat Conservation Trust (BCT) guidance. The PEA is attached (see Appendix I) - see 'Extract 1' below from the PEA.

Extract 1: Bats: Six buildings at Gamford Farm have been categorised as possessing bat roost potential, in accordance with current BCT guidelines. Buildings 1, 2, 3, 5 and 6 pertain to having "Moderate" potential and Building 9 pertains to having "Low" potential. It is recommended that a suite of dusk/dawn surveys should be undertaken at the site within the main active season of bats (May - August) in order to establish if/which buildings contain roost(s) and if so identify the species, abundance, roost locations and flight lines following emergence/re-entry. 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 a European Protected Species Mitigation Licence (EPSML) and subsequent granting of a licence will be required.

- 1.2 Updated site proposals involve the creation of 8 detached dwellings to replace the derelict farm house and outbuildings, and will include new landscaping/access (see Figures 1-2).



Figures 1-2 - Updated existing site plan (top left) Updated proposed plan (top right)

- 1.3 The aim of the dusk/dawn surveys were to:
- Establish if/which buildings are being used by bats for roosting purposes,
 - Determine all roost locations where bats are present,
 - Determine which species are present,
 - Establish abundance,
 - Establish flight lines on site where bats are present,
 - Ensure that the required level of survey work is undertaken to apply for a European protected species mitigation licence (EPSML) should one be necessary,
 - Provide recommendations in relation to mitigation strategies that may be necessary to prevent detrimental effects from the proposals to the bat population
- 1.4 In accordance with paragraph 175 of the National Planning Policy Framework (NPPF), *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019), measures have been recommended proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain as part of the scheme.
- 1.5 See Figure 3 below for a visual key to the buildings at Gamford Farm, taken from the PEA.



Figure 3 - Visual key to the Buildings as termed at Gamford Farm

2.0 Bats - Legislation & Planning Policy

- 2.1 Up to 11 bat species have been recorded in Wrexham, most of which use built structures, notably occupied residential properties, for roosting. The most frequently encountered species is the Common Pipistrelle bat (*Pipistrellus pipistrellus*) and its abundant status in Wrexham is reflected throughout the UK.
- 2.2 All British bats and their **roosts are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2017. 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.
- 2.3 The National Planning Policy Framework (NPPF) has replaced the 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.
- 2.4 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 dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments to benefit these species.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying principle 175(a), as extracted from the NPPF.

"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".

2.5 Use of Buildings by Bats

- a) Summer breeding roost
- b) Hibernation roost
- 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 43 (d) 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.

- 2.6 Chapter 5, point 2.8 of Planning Policy Wales (PPW) stipulates the following:

“The planning system has an important part to play in meeting biodiversity objectives by promoting approaches to development which create new opportunities to enhance biodiversity, prevent biodiversity losses, or compensate for losses where damage is unavoidable. Local planning authorities must address biodiversity issues, in so far as they relate to land planning, in both development plans and development management decisions. Local planning authorities should consider how they might accommodate a response to climate change as part of their overall approach towards meeting biodiversity objectives. Ways in which the adaptation needs of biodiversity could be considered include identifying the scope for minimising or reversing the fragmentation of habitats and improving habitat connectivity through the promotion of wildlife corridors. Local planning authorities should ensure that development minimises impact within areas identified as important for the ability of species to adapt and/or to move to more suitable habitats.”

3.0 Desk Study & Site Background

Desktop Study

- 3.1 During the Preliminary Ecological Appraisal (see Appendix I) a data search to include all protected species and designated sites within a 2.0km radius of Gamford Farm was requested from the Local Biological Records Centre serving Wrexham (Cofnod). The data search provided supplementary and otherwise unobtainable information concerning protected species and their local distributions.

A summary of the records provided in relation to bats is given below.

*“Bats - 10 records of bats comprising of Common Pipistrelle, *Pipistrellus sp.* and Unknown bat; the nearest of which is a *Pipistrellus sp.*, record located 304 metres to the west.”*

- 3.2 Information was also gathered using Multi Agency Geographic Information for the Countryside (MAGIC – provided by Defra) and Google Earth (© 2018/19); such information aids in understanding how species might interact with the site and/or its surroundings.

Site Background

- 3.3 During the desktop study stage of the Preliminary Ecological Appraisal it was acknowledged that Gamford Farm was subject to previous ecological surveys by Arbtech and The Environment Partnership (TEP) in 2015, the information is freely available on the Wrexham Planning Portal; the findings were acknowledged as part of the Preliminary Ecological Appraisal compilation; a summary of the 2015 surveys is given below:

“Bats - During an internal inspection evidence of bats was located on the top floor and loft of Gamford House (Building 1) by TEP who stated in their Ecological Assessment “Due to the high number of droppings recorded, this is likely to be a maternity roost”. TEP then

recommended a host of dusk/dawn surveys at the site which covered most of the buildings. A total of 8 dusk surveys were subsequently undertaken by Arbtech in the same year, who concluded the following within their ecological report "It has been confirmed that bats are roosting within the main house (Building 1). Features suitable for bats exist across the site and although every effort has been made to confirm likely absence, a precautionary approach to demolition is recommended to minimise the risks of impact on bats incidentally and infrequently using other buildings and features."

2015 Ecological Surveys - a timeline of previous bat related surveys at the site

11th June 2015, TEP - Ecological Assessment
18th August 2015, Arbtech - Dusk survey (Bats)
24th August 2015, Arbtech - Dusk survey (Bats)
25th August 2015, Arbtech - Dusk survey (Bats)
31st August 2015, Arbtech - Dusk survey (Bats)
21st September 2015, Arbtech - Dusk survey (Bats)
22nd September 2015, Arbtech - Dusk survey (Bats)
23rd September 2015, Arbtech - Dusk survey (Bats)
24th September 2015, Arbtech - Dusk survey (Bats)

- 3.4 During the Tyrer Ecological Consultants Ltd PEA (December 2018, Appendix I) Gamford House (Building 1), which is the former dwelling on site, was discovered to have been affected by severe fire damage on 5th November 2018, destroying the roof and much of the upper floor. As described in section 3.3, Building 1 had previously been confirmed as a Common Pipistrelle bat 'maternity roost'. Irrespective of the fire damage, Building 1 was included in the suite of Tyrer Ecological Consultants Ltd dusk and dawn surveys of 2019, as it was deemed to still offer a level of potential features that could be used by bats.

4.0 Constraints

- 4.1 All dusk and dawn survey visits were completed within suitable weather parameters in the active season of bats when maternity colonies have formed. All things considered no significant constraints arose to prevent the gathering of ecological information on which to base sound conclusions and recommendations.

5.0 Dusk & Dawn Survey Results

- 5.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:-

"The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive."

- 5.2 Four surveys comprising dusk and/or dawn timing periods were carried out between May 13th and June 14th 2019 (see Table 1) which respectively covered Building(s) 1, 2, 3, 5, 6 and 9. The number of surveys and surveyors were adequate relative to the roost potential that was initially identified per building i.e. between 'Low' and 'Moderate'.

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Surveyors were positioned so that all elevations on those building were covered. A dusk and dawn survey took place on all six buildings.

Table 1 - Surveyors from the four 2019 dusk & dawn surveys

Survey	Surveyor(s)	Surveyor Credentials
13/05/2019 Buildings 1-3 Dusk 1	Mr. S. Irwin	Natural Resources Wales bat licence. (Licence no. 73156:OTH:CSAB:2016). 30+ yrs exp.
	Mr. J. Styles	(AMRSB), FISC Level 5 Ecologist and accredited agent on the Class 2 Natural Resources Wales License = S086297/1 of Mrs. K. Wilding.
	Ms. A. Watson	Trainee Ecologist, in training with Tyrer Ecological Consultants Ltd. 1 yr exp.
	Mr. M. Mulholland	An experienced ecological consultant with Tyrer Ecological Consultants Ltd. 4 yrs exp.
	Mr. P. Harrison	A seasonal ecological consultant with experience of undertaking professional bat surveys. 3 yrs exp.
28/05/2019 Buildings 5, 6, 9 Dusk 2	Mr. M. Pritchard	Multiple protected species licenced Ecologist and accredited agent on the Class 2 Natural Resources Wales License of Mrs. K. Wilding (S086297/1).
	Mr. J. Styles	(AMRSB), FISC Level 5 Ecologist and accredited agent on the Class 2 Natural Resources Wales License = S086297/1 of Mrs. K. Wilding.
	Ms. A. Watson	Trainee Ecologist, in training with Tyrer Ecological Consultants Ltd. 1 yr exp.
	Mr. P. Harrison	A seasonal ecological consultant with experience of undertaking professional bat surveys
	Mr. M. Mulholland	An experienced ecological consultant with Tyrer Ecological Consultants Ltd. 4 yrs exp.
29/05/2019 Buildings 1-3 Dawn 1	Mrs. K. Wilding	Director of Tyrer Ecological Consultants Ltd who holds a Natural Resources Wales License = S086297/1
	Mr. M. Pritchard	Multiple protected species licenced Ecologist and accredited agent on the Class 2 Natural Resources Wales License of Mrs. K. Wilding (S086297/1).
	Ms. A. Watson	Trainee Ecologist, in training with Tyrer Ecological Consultants Ltd. 1 yr exp.
	Mr. M. Mulholland	An experienced ecological consultant with Tyrer Ecological Consultants Ltd. 4 yrs exp.
14/06/2019 Buildings 5, 6 Dawn 2	Mrs. K. Wilding	Director of Tyrer Ecological Consultants Ltd who holds a Natural Resources Wales License = S086297/1
	Mr. J. Styles	(AMRSB), FISC Level 5 Ecologist and accredited agent on the Class 2 Natural Resources Wales License = S086297/1 of Mrs. K. Wilding.
	Mr. M. Pritchard	Multiple protected species licenced Ecologist and accredited agent on the Class 2 Natural Resources Wales License of Mrs. K. Wilding (S086297/1).

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- 5.2 **Survey Protocol:** When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of Tyrer Ecological Consultants Ltd, the nature of the building(s), how complex a building(s) is relative to observation points, and species that can be anticipated as being present either at the building(s) or in the locality. In this case, the bat roost potential that exists at Gamford Farm presents a scenario whereby both dawn and dusk surveys should be carried out due primarily to the wide variety of potential roost opportunities present which could support a bat roost in an area of good quality habitat.
- 5.3 Surveyors were positioned in locations that allowed unrestricted views of the identified bat roost potential. The surveys were aided with Anabat electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were then analysed with Analook computer software to verify field observations.
- 5.4 Survey protocol should not be determined by parties who are 1) not familiar with the site and 2) do not have a sufficient level or experience in relation to the undertaking of dusk/dawn bat surveys.

Times of Survey	Date	Weather Conditions
Dusk survey 1 Buildings 1-3 2040 - 2220	13 th May 2019	Sunset: 2100: Dry, Calm, 25% cloud cover Start temp: 13 ° C End temp: 12 ° C
Dusk survey 2 Buildings 5,6,9 2100 - 2250	28 th May 2019	Sunset: 2123: Dry, Clear, Light Air, 10% cloud cover Start temp: 11 ° C End temp: 9 ° C
Dawn survey 1 Buildings 1-3 0326 - 0515	29 th May 2019	Sunrise: 0456: Dry, Calm, 40% cloud cover Start temp: 6 ° C End temp: 7 ° C
Dusk survey 2 Buildings 5,6,9 0315 - 0500	14th June 2019	Sunrise: 0444: Light Rain, Calm, 80% cloud cover Start temp: 10 ° C End temp: 10 ° C

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Dusk Survey	Time	Activity
13 th May 2019 Buildings 1-3 Dusk 1	2040 - 2220	Summary: Emergence of x3 Common Pipistrelle bats during the Dusk observations; one from Building 1, one from Building 2, one from Building 3. 2117 hrs: Emergence of x1 Common Pipistrelle from the north-east facing side elevation of Building 3, via gap in brickwork at wall plate. 2129 hrs: Emergence of x1 Common Pipistrelle from within the northern-most open door compartment of Building 2. 2130 hrs: Common Noctule bat was heard not seen. 2141 hrs: Emergence of x1 Common Pipistrelle from beneath a timber fascia on the north-western elevation alcove of Building 1. 2148 hrs: Brown Long-eared bat foraging, flew west over Building 3. 2153 hrs: A Common Pipistrelle entered the open upper floor of Building 3 for a brief period of foraging then flew out again. General activity was occasional with at least four bats on site.
28 th May 2019 Buildings 5,6,9 Dusk 2	2100 - 2250	Summary: Emergence of x2 Common Pipistrelle bats from Building 6 during the dusk observations. 2147 hrs: Common Pipistrelle bat observed commuting through the site from the north-east and ventured west between Buildings 5-6 before returning to centre of site to forage. 2148 hrs: Emergence of x2 Common Pipistrelle bats from Building 6 during the dusk observations at area by the ridge tiles near the southern elevation. 2149 - 2202 hrs: Between this period a total of four Common Pipistrelle bats were observed foraging consistently throughout the north of the site between buildings, no emergence was observed by the additional two bats. 2204 hrs: Common Noctule bat commutes overhead south-east to north-west. General activity was frequent by a total of four Common Pipistrelle bats.

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29th May 2019 Buildings 1-3 Dawn 1	0326 - 0515	Summary: No bat re-entry was observed during the dawn observation period. 0335 hrs: Common Pipistrelle was heard not seen, centre of site. 0422 hrs: Common Pipistrelle observed minor swarming around the ridge tiles of Building 3 but flew away to the east. General activity was nil outside of the given observations.
14th June 2019 Buildings 5,6 Dawn 2	0315 - 0500	Summary: x1 Common Pipistrelle bat re-entered Building 6 during the Dawn observations, entering at the south-east facing gable elevation into the open 'mezzanine' upper floor to the ridge beam. 0400 hrs: Common Pipistrelle bat re-entered Building 6 during the Dawn observations, entering at the south-facing gable elevation into the open mezzanine floor to the ridge. 0429 hrs: Common Pipistrelle bat observed foraging in the north of the site near Building 7 and 8, but commutes to the east. General activity was nil outside of the given observations.

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Key	
	Survey Site boundary
	Surveyor positions covering Buildings 1-3 during the dusk/dawn surveys
	Surveyor positions covering Buildings 5, 6 and 9 during the dusk/dawn surveys
	Point of bat emergence observed during the dusk survey
	Points of bat re-entry observed during the dawn survey
	Commuting activity observed during the surveys
	Foraging activity observed during dusk surveys



Emergence point at Building 1 - beneath a timber fascia on the single-storey section



Emergence point at Building 2 - from inside dilapidated barn open door compartment



Emergence point at Building 3 - from crevice in brickwork at wall plate



Emergence point at Building 6 during dusk - from crevice in brickwork at wall plate



Re-entry point at Building 6 during dawn survey - into mezzanine upper floor and to ridge

6.0 Dusk & Dawn Survey Conclusions and Recommendations

- 6.1 The survey results gathered by Tyrer Ecological Consultants Ltd in 2019 concluded that four of the buildings at Gamford Farm are being used by singular/small numbers of Common Pipistrelle bats for the purposes of a 'day roost'. Three bats were observed emerging respectively from Building(s) 1, 2 and 3 during the first dusk survey, with activity consistently observed by the same species on site thereafter. Two bats were observed emerging from Building 6 during the second dusk survey, with activity observed thereafter. One bat was observed re-entering Building 6 during the second dawn survey, via the upper 'mezzanine' floor whereby it entered a crevice at the ridge beam.
- 6.2 The evidence observed during the surveys indicates that the 'maternity roost' that had been identified in the loft of Building 1 - Gamford House prior to the fire damage which significantly affected the structure burning out the loft (November 2018) has been declared 'roost abandoned', with no bats observed using that area of Building 1 during the four surveys, furthermore, the current condition of this structure is considered as being generally unsuitable to meet the required needs of a breeding site.
- 6.3 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) describe a 'Day roost' as 'a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer'.
- 6.4 The permanent destruction, obstruction or modification of a bat roost(s) will need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation. A European Protected Species Mitigation Licence (EPSML) will be required to legally destroy a place that is used for breeding, rest or shelter (roost) by bats, however, before a licence can be applied for all planning issues need to be resolved.
- 6.5 In order that the LPA can implement its obligations under the Conservation of Habitats & Species Regulations 2017 appropriate and proportionate mitigation will need to accompany the planning application which will demonstrate that the "*favourable conservation*" of the species concerned can be maintained.

7.0 Indicative Mitigation

- 7.1 From the evidence gained following the dusk/dawn surveys, the use of Gamford Farm by bats is considered to be of low-level significance relatable to Common Pipistrelle bats and their current status (as according to - English Nature: Bat Mitigation Guidelines 2004); the proposed mitigation is proportionate to that use. However, if at any time that assessment is revised to a higher level, then the mitigation will also be accordingly revised.
- 7.2 The following procedures and mitigation recommendations are designed to allow the Local Planning Authority (LPA), in association with their ecological advisers, to determine a Planning Application where a European Protected Species has been identified and will be affected by the work for which the Planning Application seeks consent. In addition Local Planning Authorities in accordance with the obligations placed upon them by way of their duties under the Conservation of Habitats & Species Regulations 2017 have to take into consideration the presence of a European Protected species before determination of an application where it/they have been identified.

- 7.3 The LPA need to consider the mitigation in relation to the potential success of a Natural Resources Wales licence application and/or if in their opinion the mitigation is considered as being appropriate, or if it is over and above what is required; if they determine that the mitigation is appropriate then a Planning Condition should be attached requiring the roost provision to be implemented. If the LPA consider that the mitigation is over what is necessary but require “enhancement” as part of Local Biodiversity Policies this should be included in the terms of Consent. The acting bat ecologist deems the new roost creation as appropriate and not over and above what is required.
- 7.4 Notwithstanding that Planning Consent is granted or equally if the work is undertaken outside of the planning system, whereby projects that do not require planning consent may affect bats or their roost, including disturbance, it does not absolve the applicant, site owner, developer or any other party involved with the work from ensuring that an application is made for a Natural Resources Wales Development licence, to legally undertake work that will affect bat(s) or their roost/place of shelter. If work is undertaken without a licence and bat/s or their roost/s is/are affected then a breach of current wildlife legislation will occur for which penalties are high.
- 7.5 Under Regulation 53(1) and 56(3) (a) of the Conservation of Habitats & Species Regulations 2017, a licence is required prior to disturbing bats or destroying/damaging or obstructing any place that is used by bats as a breeding site or resting place. The licence is issued by Natural Resources Wales.

Summary of Mitigation

- 7.6 The redevelopment of Gamford Farm is a key component of the applicant’s plans for the site however it is acknowledged that the presence of bats needs to be addressed from both a legal and conservation perspective. The mitigation proposals are seen to be the most productive way forward that will retain long term opportunities for bats.

Areas of centralised scrub on the site has been identified as good foraging habitat which will inevitably be lost as a result of the proposals - though border hedgerows, border scattered trees and open water will be retained - habitat retention alongside new native landscaping will mean all proposed new roost(s) will not be at any further distance from foraging areas.

To ensure that bats are not left without a roost during demolition/conversion works a 2F receptor bat box (or equivalent, such as NHBS Kent Bat Box) will be erected on a suitable tree in the south-east of the site prior to the commencement of any works (Figure 5). The installed bat box will act as a temporary receptor roost should any bats need to be handled and translocated to it under licence during the work schedule, and it will be removed following completion of works. No maintenance or management works are required at the receptor box which will be solely dedicated to roosting bats.



Figure 5 - Location of proposed receptor roost, red cursor, adapted over imagery (Google 2019)

The Ecologist is to undertake an induction or 'toolbox talk' on possible bat presence and documents that form the license i.e. License, Method Statement and Work Schedule to be kept on site for the duration of the work.

Prior to any work being undertaken the presence/absence bats, as far as possible, will be established by undertaking detailed investigation of the areas at which bats have been located at Gamford Farm; typically the features described at Buildings 1, 2, 3 and 6 which have been confirmed as bat roosts. The ecologist will supervise careful dismantling of areas where bats have been observed roosting at these buildings; wherever opportunities for bats exist in other parts of the building(s) the supervised dismantling will extend to these areas. In the event of bat(s) being present, it/they will be removed, placed in a secure box with soft tissue and immediately transferred into the receptor bat box that will have previously been setup in the south-east of the site on a suitable tree as indicated. Once it has been established by the ecologist that bat(s) are absent from Buildings 1, 2, 3 and 6, any demolition/conversion works will continue to completion.

All dismantling of confirmed and potential roost features will be undertaken during favourable weather conditions only. There are no seasonal constraints in relation to Common Pipistrelle bats and day roosts, though the applicant should be aware that breeding birds use the site particularly during the months of March-August.

New roost provision should be integrated into the re-development at Gamford Farm by way of the following recommendations to effectively replicate the roost(s) opportunities that will be lost at Buildings 1, 2, 3 and 6:

- Installation of an Large Ibstock Enclosed Bat Box 'B' into a (preferably) south-east facing elevation of Building 1 - Gamford House when converted, or newly built structure in the same footprint if Building 1 is to be demolished.
- Access for bats created beneath the east-facing fascia at/around Building 1 - Gamford House when converted, or newly built structure in the same footprint if Building 1 is to be demolished.
- Installation of two Norfolk bat brick's at Buildings 2 and 3 when converted, or newly built structure(s) in the same location if the buildings are to be demolished.
- Access created/reinstated at the ridge tiles of Building 6 when converted, or newly built structure in the same footprint if Building 6 is demolished. Provision at the ridge will provide access to 1F bitumen underfelt - no breathable roofing membrane (BRM) to be used at Building 6, BRM has been proven to be detrimental to the safety of bats who become entangled in BRM leading to injury/death.

New external lighting will be greater than what currently exists; where present new lighting is to be directed away from all newly created bat roosts/ access points, identified flight paths and foraging areas. Lighting should not be directed at or close to roost areas nor should it affect nearby identified flight lines.

New roost(s) will be permanent and dedicated for bats; they cannot be used for any other purpose. Management requirements for the roost(s) are considered to be absent.

No post-development monitoring is required in respect of 'day roosts' attributed to Common Pipistrelle bats.

Mitigation proposed is subject to the approval of Natural Resources Wales.

7.7 Work undertaken by the Ecologist

Capture/Exclusion: Once an EPSML licence is in place the contractor will provide a safe means of access (such as erected scaffolding) to allow the Ecologist to investigate all of the bat roost potential and confirmed roost features at Gamford Farm.

Due to the various areas of bat roost potential and similar opportunities found on site, exclusion is considered to be unproductive. The ecologist will supervise careful and controlled dismantling of all bat roost area(s), as well as other opportunities for bats, supervision of feature stripping will also extend to these areas. All dismantling of confirmed and potential roost features will be undertaken during favourable weather conditions - the applicant should be aware that there may be seasonal/timing implications in relation to both **Great Crested Newt** and **Breeding Birds**, covered in separate reports.

If bats are encountered during the supervised site works then it/they will be removed, placed in a secure box with soft tissue and immediately transferred into the receptor roost that will have previously been erected in the south-east of the site.

Once it has been established by the ecologist that bat(s) are absent from buildings the demolition work will continue to completion at each respective building. In the unlikely event that bats are found outside of ecological clerk of work (ECoW) time, then as legal

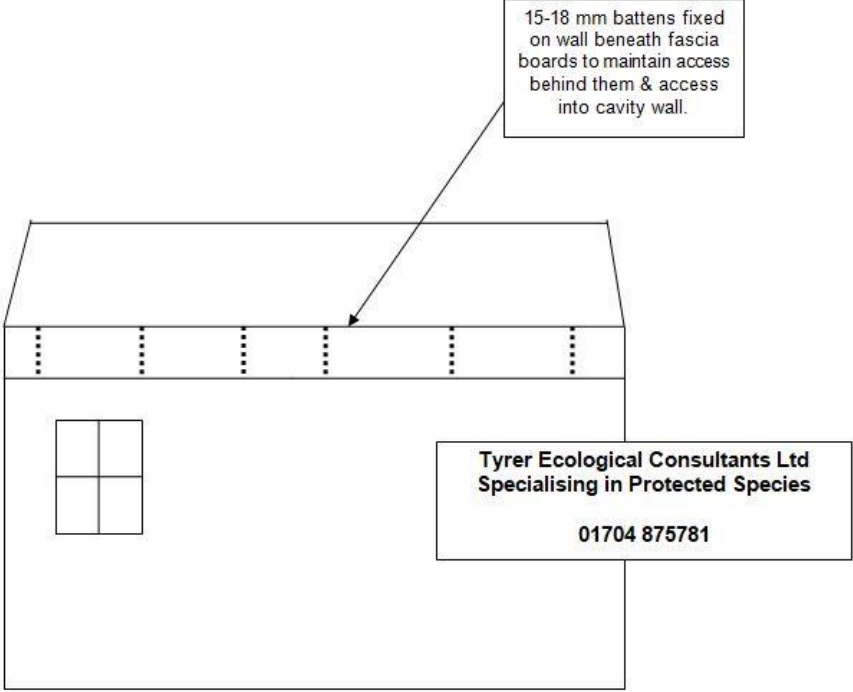
requirement and conditions of the licence work will immediately cease and the ecologist contacted for further advice; contractors must not touch, handle or in any way cause bats to move, which would constitute unlicensed disturbance.

7.8 Work undertaken by the Contractor

Replacement roosting provision will be a like-for-like substitute of the existing 'day roosts' and access points in accordance with the Bat Mitigation Guidelines (2004).

New roost provision should be integrated into the re-development of Gamford Farm by way of the following recommendations to effectively replicate the roost(s) opportunities to be lost at Buildings 1, 2, 3 and 6:

- Installation of an Large Istock Enclosed Bat Box 'B' into a (preferably) south-east facing elevation of Building 1 - Gamford House when converted, or newly built structure in the same location if Building 1 is to be demolished.
- Access for bats created beneath the east-facing fascia at/around Building 1 - Gamford House when converted, or newly built structure in the same location if Building 1 is to be demolished.
- Installation of two Norfolk bat brick's at Buildings 2 and 3 when converted, or newly built structure(s) in the same location if the buildings are to be demolished.
- Access created/reinstated at the ridge tiles of Building 6 when converted, or newly built structure in the same footprint if Building 6 is demolished. Provision at the ridge will provide access to 1F bitumen underfelt - no breathable roofing membrane (BRM) to be used at Building 6, BRM has been proven to be detrimental to the safety of bats who become entangled in BRM leading to injury/death.

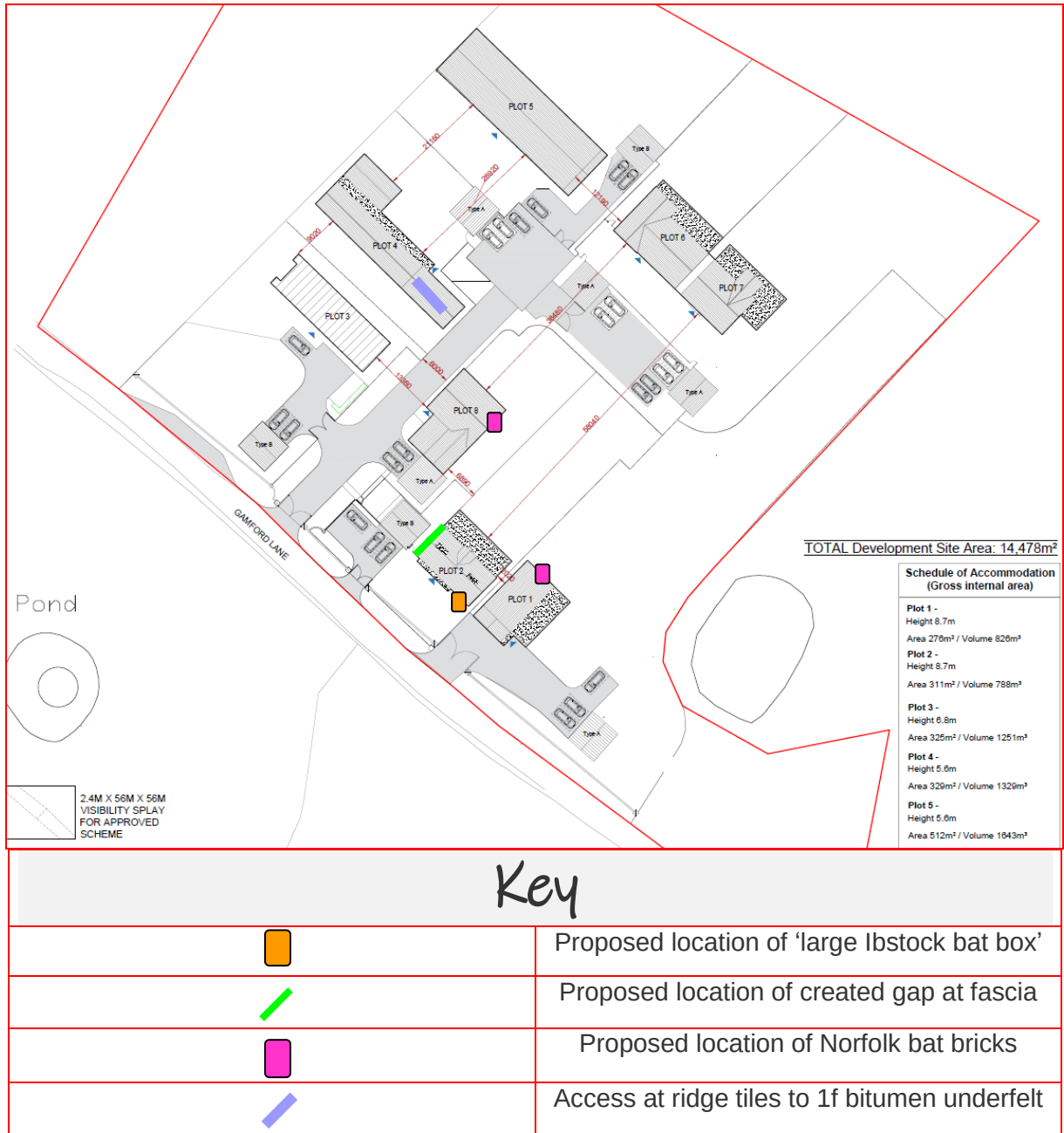
Recommended New Bat Roost Provision	Item Spec
 Large Bespoke 215 x 290 mm	Large Istock Enclosed Bat Box 'B' x1 Large Box Height: 290mm Width: 215mm Depth: 105mm Weight: 8kg Suitable link - www.nhbs.com/ibstock-enclosed-bat-box-b *Must ensure landing platform is 'roughened' to make surface coarse not smooth, to allow bats to land and climb into product for roosting
Provision for bat access following fascia board replacement  15-18 mm battens fixed on wall beneath fascia boards to maintain access behind them & access into cavity wall. Tyrer Ecological Consultants Ltd Specialising in Protected Species 01704 875781	

Gamford Farm, Gamford Lane, Rossett, LL12 0EW
Bats - Dusk & Dawn Survey Results

	Norfolk Bat Brick x2 Dimensions: 200 x 100 x 70mm * Weight: 2.5 kg Suitable link - www.nhbs.com/norfolk-bat-brick
1.  2.  3.   Access in ridge tiles; the top of the ridge beam should not be covered with a breathable membrane to avoid the sharp claws of bats becoming entangled in the fine fibres; a traditional section of bitumastic underfelt could however be used over the ridge beam	Access at the ridge tile created over 1F bitumen underfelt. No breathable roofing membranes (BRM) to be used. There are currently no 'bat safe' BRM's on the market.

Gamford Farm, Gamford Lane, Rossett, LL12 0EW

Bats - Dusk & Dawn Survey Results



New roost provisions at Gamford Farm - indicative - adapted over updated proposals