

Building 1 (B1) at Frog Farm, Pilgrims Way, Otford, Sevenoaks.

Bat Emergence Survey

A Report for Mr and Mrs Chaplin

August 2019



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Building 1 (B1) at Frog Farm, Sevenoaks

Bat Emergence Survey

Controlled Copy

01 of 02

01 Mr and Mrs Chaplin

02 Greenspace Ecological Solutions Ltd

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Proofread by Guy Newman MCIEEM

*The content of this report is the responsibility of Greenspace Ecological Solutions Ltd.
It should be noted that whilst every effort has been made to meet the client's requirements, no site survey can ensure complete assessment or prediction of the changeable onsite environment. Furthermore, should more than 12 months elapse between the date of this survey and any subsequent development, it may be necessary to consider the need for an update survey to be undertaken.*

Report Number J20453_P2

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1 PROJECT OVERVIEW

Client:	Mr and Mrs Chaplin
Site Address:	Building (B1) at Frog Farm, Pilgrims Way Otford, Sevenoaks, Kent, TN14 5JQ
Attending Ecologists:	Guy Newman (Natural England Level 2 Class Bat Licence) Joe Dyson (Natural England Level 1 Class Bat Licence) Tanya Rowlinson Steve Songhurst Mike Marriott Gemma Abela Martin Rann
Survey Dates:	28 th May 2019 17 th June 2019
Site Proposals:	Conversion from disused agricultural barn to a single dwelling with external alterations and associated areas, car parking and landscaping.
Associated Planning Reference Number:	18/01630/FUL

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Previous Reports:	Preliminary Ecological Appraisal, Greenspace Ecological Solutions, November 2017

2 INTRODUCTION

2.1 Context

2.1.1 In response to recommendations made within a previously conducted Preliminary Ecological Appraisal (PEA) of The Barn, Frog Farm, Otford (Greenspace Ecological Solutions, 2017), GES were commissioned to undertake bat emergence surveys of the building to be affected.

2.1.2 The results of the emergence surveys, as described in this report, serve to ensure that the Favourable Conservation Status (FCS) of bats is maintained throughout the development and that the proposal remains compliant with existing legislation and planning policies which serve to protect bats and their roosts. Where appropriate, proportionate mitigation to be incorporated within the design of the building, is provided within this report.

2.2 Site Location

2.2.1 The site is situated approximately 1km west of the village of Otford, Kent, at national grid reference TQ 518 592. The geographical location of the site is shown in image 1.

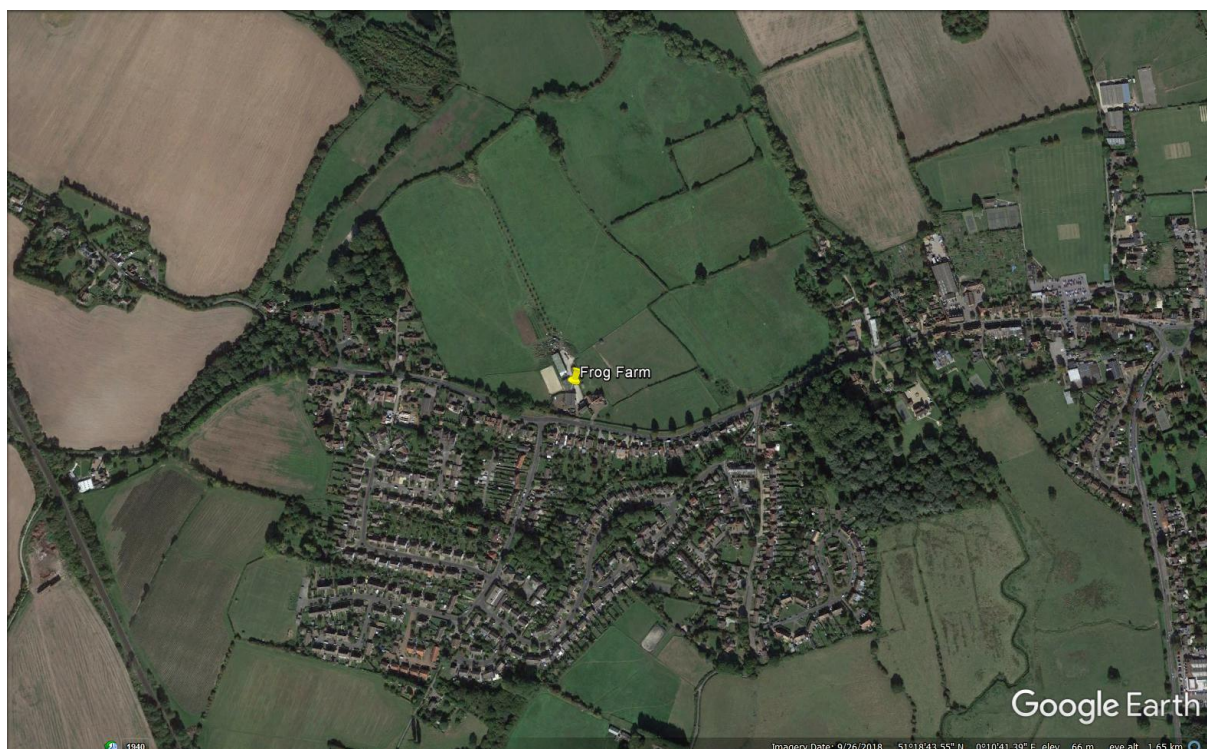


Image 1: Geographical location of Frog Farm.

2.3 Site Description

2.3.1 The site comprises a single L shaped Barn within an area of hardstanding and amenity Grassland.

2.3.2 The wider landscape is predominantly agricultural land with pockets of woodland. The centre of Otford is approximately 800m east of the site and the M26 motorway lies approximately 1km south of the site to the nearest point.

2.4 Policies and Legislation

2.4.1 The National Planning Policy Framework 2019 (NPPF) aims to protect species of significant conservation importance in England (in this case bats), as covered by wildlife legislation (see below), NPPF, national and local Biodiversity Action Plans (BAP's) and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Local planning authorities have an obligation to protect such species and are also required to seek opportunities to promote and enhance biodiversity in accordance with the above legislation, policies and plans.

2.4.2 All British bat species and their places of rest and shelter receive UK and European protection under the Conservation of Habitats and Species Regulation 2018 (Habitats Regulations 2018) and the Wildlife and Countryside Act (WCA) 1981 (as amended). This protection means that bats and their places of rest and shelter are a material consideration in the planning process.

2.4.3 Taken together, unless under licence, these make it an offence to:

- Deliberately capture or intentionally take a bat;
- Deliberately or intentionally kill or injure a bat;
- To be in possession or control of any live or dead bat or any part of, or anything derived from a bat;
- Damage or destroy a breeding site or resting place of a bat;
- Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection;
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection;
- Deliberately disturb any bat, in particular any disturbance which is likely to (i) impair their ability to survive, breed, reproduce or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or (ii) to affect significantly the local distribution or abundance of the species to which they belong.

2.4.4 A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to use the same roost sites at different times of year, current legal opinion is that a bat roost is protected whether bats are present at the time.

2.4.5 In addition to the above, certain species of bat are listed on Annex II of the Habitat Regulations 2018. Annex II species include greater and lesser horseshoe bats, barbastelle and Bechstein's bat. Where present, consideration to the requirement of a Special Areas of Conservation (SAC) should be given.

2.5 Objectives of the Survey

2.5.1 The objectives of the surveys were to:

- Determine the presence of bats within the building to be affected by the proposal,
- Identify the number and species of bats, should they be present,
- Identify the entrance/exit points used by bats, should they be present,
- Evaluate the potential for bats to be affected by proposals,
- Identify any legal or policy constraints related to bats that may affect the development,
- Suggest mitigation/compensation measures that may be required.

2.6 Survey Constraints

2.6.1 There were no constraints to the surveys.

3 SURVEY METHODOLOGY

3.1 Emergence/Re-entry Surveys

- 3.1.1 Although during the initial PEA, a single common pipistrelle *Pipistrellus pipistrellus* bat was recorded roosting/ hibernating beneath a hessian sack, the remainder of the building was assessed as having 'Moderate' suitability (GES, 2017).
- 3.1.2 To ensure reasonable effort to determine the presence of summer roosting bats within the remainder of the building was applied, two dusk emergence surveys were carried out on 28th May and 17th June 2019. The surveys were completed in accordance with current best practice guidance (Collins, 2016) and to adequately observe all aspects of the buildings, four surveyors were deployed during each survey.
- 3.1.3 All surveys were completed in favourable weather conditions with night-time temperatures of $\geq 10^{\circ}\text{C}$ and little or no rain.
- 3.1.4 To account for the varying times in which differing bat species emerge, evening emergence surveys commenced 15 minutes before sunset and continued for 1 hour and 15 minutes after sunset, or until light levels deemed the survey no longer valid.
- 3.1.5 A summary of the weather conditions, surveyors and survey times recorded during the surveys is provided in Table 1.

Table 1 – Survey Times and Conditions

Date	Emergence or Re-entry	Sunset time	Start Time	End Time	Surveyors	Start Weather Conditions
28.05.19	Emergence	21.01	20.46	22.16	Gemma Abella Guy Newman Martin Rann Mike Marriott	11.1°C, 5%cc, dry and still
17.06.19	Emergence	21:17	21:02	22.32	Joe Dyson Gemma Abella Tanya Rowlinson Mike Marriot	15.5°C, 40%cc, dry and still

- 3.1.6 To aid audible detection, surveyors were equipped with Elekon Batlogger M bat detectors. These detectors convert the inaudible echolocation of bats into a frequency audible to the human ear. All calls were digitally recorded, and the sonograms later analysed through the application of the computer programme Elekon BatExplorer.

3.1.7 As the surveyors experienced no difficulties observing the building, in the professional judgment of the appointed ecologist, the application of a pre-dawn re-entry survey was considered unnecessary in this instance.

4 SURVEY RESULTS

4.1 Emergence/Re-entry Surveys

28th May 2019

- 4.1.1 No bats were recorded emerging from the building during this survey.
- 4.1.2 The first bat recorded within the site was a noctule *Nyctalus noctule* which passed near to the site at 21:35hrs, 34 minutes after sunset. Other than the single pass by the noctule, occasional passes by common pipistrelle bats toward the close of the survey, were the only bats recorded within and around the site.
- 4.1.3 Overall, bat activity within the site was considered to be “**Low**”.

17th June 2019

- 4.1.4 No bats were recorded emerging from the building during this survey.
- 4.1.5 The first bat recorded within the site was a common pipistrelle which was observed foraging around the site at 21:58hrs, 41 minutes after sunset. Soprano pipistrelle and common pipistrelle bats were recorded either commuting or foraging around the site until completion of the survey.
- 4.1.6 Overall, bat activity within the site was considered to be “**Low**”.

4.2 Summary of Results

- 4.2.1 Table 2 shows a summary of the survey results.

Table 2. Survey results summary

Date	Bats emerging or returning from/to the building	Bat species recorded commuting / foraging within the site
28.05.19	None	Noctule Common pipistrelle
17.06.19	None	Common pipistrelle Soprano pipistrelle

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 In addition to the single common pipistrelle recorded hibernating beneath a hessian sack on the rear elevation of the barn, the initial PEA of 2017 identified 'Moderate' potential for summer roosting bats (GES, 2017).
- 5.2 To ensure reasonable effort to determine the presence of summer roosting bats was applied, two evening emergence surveys were conducted during the core maternity period of May – August.
- 5.3 No summer roosting bats were recorded and bat activity within the site was considered to be Low.
- 5.4 The barn to be converted is therefore considered a hibernation site for low numbers of common pipistrelles only.
- 5.5 Current legislation protects bats and their roosts and without mitigation the confirmed hibernation roost would be destroyed during the conversion works.
- 5.6 To ensure the works are conducted in accordance with the varying legislation and planning policies which serve to protect bats and their roosts, an appropriate licence would need to be sought and approved from Natural England prior to the start of works.
- 5.7 The licence is a legal document which allows an individual to commit what would otherwise be an unlawful act, which in this instance would be the destruction of the hibernation roost.
- 5.8 Although the content of the licence would detail the timeframes, methodology and mitigation measures required, a brief overview of such matters is provided below.
- In accordance with the Bat Mitigation Guidelines (Mitchell-Jones, 2004), works to sensitive areas of the buildings (roof coverings, ceilings, fascia boards, soffit boxes, etc.) will avoid the core hibernation period by being conducted during the period 1st May – 15th October in any given year.
 - Working in this period will reduce/omit the potential for bats to be present. However, to avoid disturbing bats that may be hibernating, where practical works to sensitive areas for bats should also avoid the core maternity period for bats of 1st May – 1st September.
 - Prior to the start of any works, the contractors working on the project will be subject to a 'Toolbox Talk' by a suitably qualified ecologist. To be given by the Ecological Clerk of Works (ECoW), the 'Toolbox Talk' will outline the current legislation related to bats and their roosts and also the appropriate manner in which to proceed with the work.

- To ensure continuity of roost sites for bats within the site, one [Schwegler 2FN bat box](#) (or similar) will be installed on a suitable tree within the land ownership prior to the start of works. Although multiple locations are available, the exact locations and orientations of the box will be identified on site by the ECoW.
 - Upon completion of the installation of the bat box, works that are likely to impact the roof coverings will commence.
 - The removal of materials deemed sensitive to roosting bats (roof/hanging tiles, soffit boxes, fascia boards, etc.) will be undertaken upon approval of the licence, at the appropriate time of year and under to supervision of the licenced ECoW or an ECoW accredited to the licence.
 - Prior to removal of any materials deemed sensitive to roosting bats, an inspection of the hessian sacking known to support roosting bats will be conducted by a suitably experienced and licenced ecologist.
 - Any bats found will be captured by the ECoW (using gloved hands) and the bat being placed carefully within the Schwegler box.
 - Existing roosting points for bats will be recreated through the installation of two integrated bat boxes at suitable locations on the north eastern and south eastern elevations of the building. To ensure suitability for hibernating bats, these will be achieved through the use of a [Schwegler 2FR Bat Tube](#) (or similar). Proposed locations for the integrated boxes are presented in Figure 2.
- 5.9 All external lighting should be sympathetic to the requirement of bats and should ensure no direct illumination of the integrated bat boxes and avoid where possible excessive lighting of the areas to the east, south and west of the building, which are used by foraging and commuting bats. This can be achieved through the use of low-level bollard, directional and/or PIR activated lighting. Greater detail on the artificial lighting and bats has been produced by the Institute of Lighting Professionals (ILP) in their 2018 guidance document [Guidance Note 8 Bats and artificial lighting](#).
- 5.10 It should be noted that the licence application can only be submitted once full planning permission has been approved and all planning conditions relating to wildlife that can be discharged, have been discharged.
- 5.11 Although approval of the above strategy will be given by Natural England prior to the start of works, it is suggested that; so long as the above recommendations are adhered to then the

proposed development will be conducted in accordance with the requirements of current legislation and planning policies which serve to protect bats and their roosts.

6 SUMMARY

- 6.1 In response to the proposed building conversion at Frog Farm, Otford and recommendations made within the PEA report, the building was subject to two evening emergence surveys.
- 6.2 The preliminary ecological appraisal and emergence surveys serve to determine the species of bats, the numbers of bats and the status of the roost/s, if present.
- 6.3 The PEA identified a single common pipistrelle hibernating beneath a hessian sack.
- 6.4 The emergence surveys recorded no bats emerging or re-entering from the building and activity on site during these surveys was “Low”.
- 6.5 The surveys confirmed the presence of a common pipistrelle hibernation roost and that summer roosting bats are likely to be absent.
- 6.6 The proposed works will result in an impact to the common pipistrelle roost/s and no works to building should commence until an appropriate licence has been submitted and approved by Natural England.
- 6.7 An outline of the proposed mitigation strategy has been provided.
- 6.8 So long as the mitigation strategy set out within the licence is implemented in full, then the favourable conservation status of bats will be maintained, and the proposed development will remain compliant with current legislation and planning policies which serve to protect bats.

7 REFERENCES

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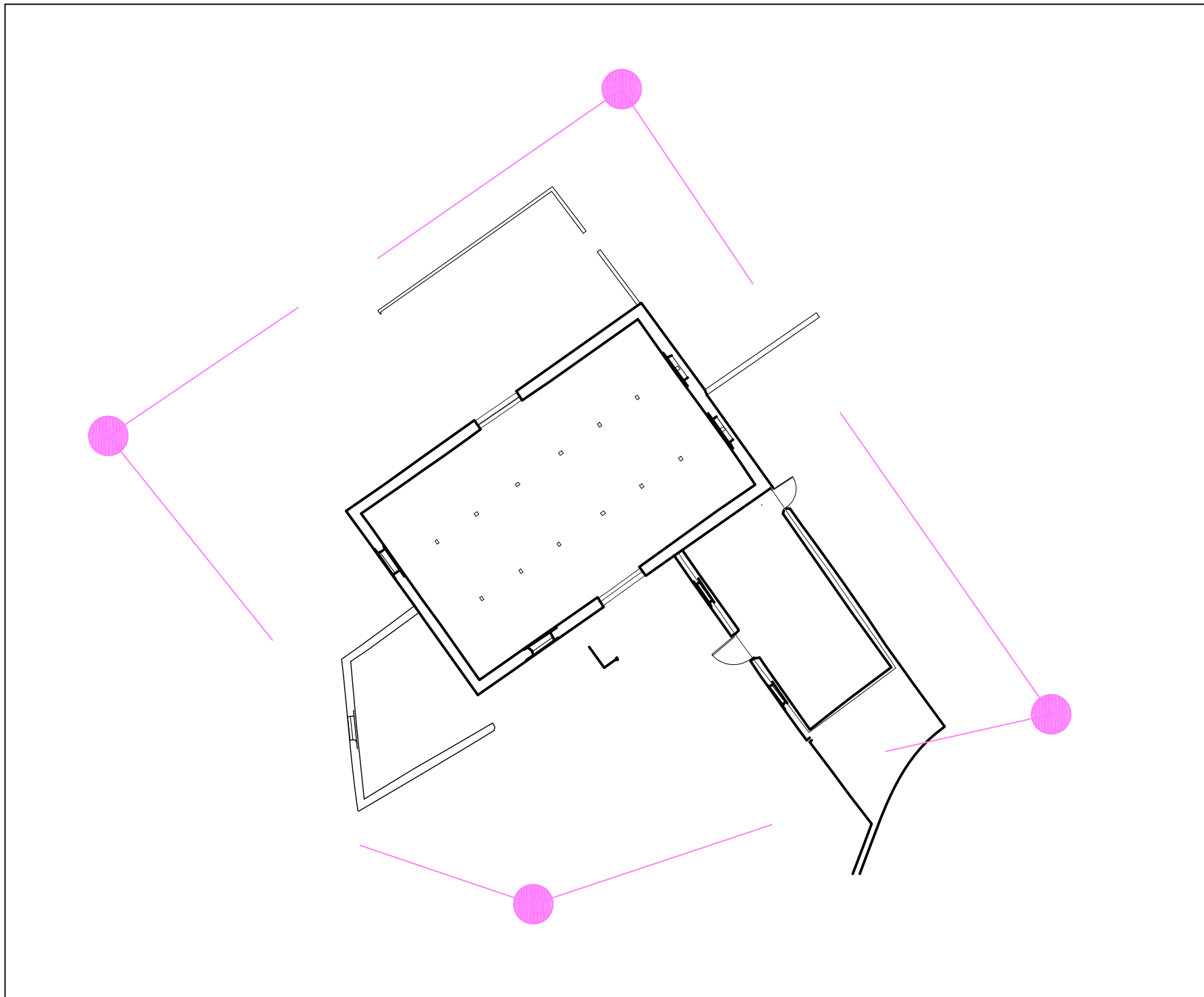
<http://www.legislation.gov.uk/ukpga/2006/16/contents>

The Conservation of Habitats and Species Regulations (Habitats Regulations) 2018.

<http://www.legislation.gov.uk/uksi/2018/1307/contents/made>

Wildlife and Countryside Act (as amended) 1981. <http://jncc.defra.gov.uk/page-1377>

Figures



Legend

 Surveyor Location



Job Reference : J20453_P2

Project Title
Frog Farm

Drawing Title
Figure 1: Surveyor Location Plan

Date : 07-08-19 Checked : GN


Drawn : GN Approved : MR

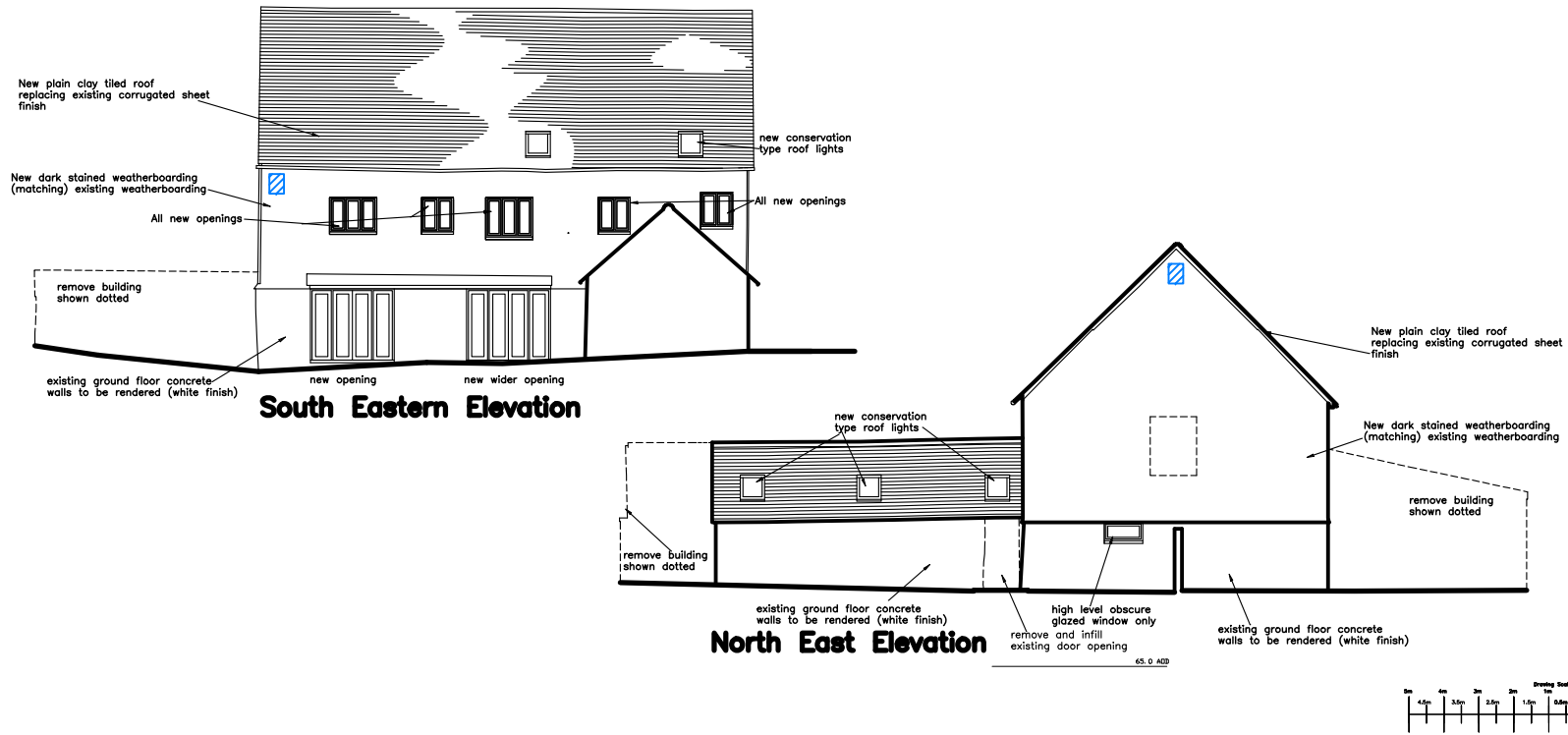
Status : Final Scale : NTS



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Legend

 Integrated Bat Box



Job Reference : J20453_P2
 Project Title
 Frog Farm
 Drawing Title
 Figure 2 - Integrated Box Location Plan
 Date : 07-08-19 Checked : GN
 Drawn : GN Approved : MR
 Status : Final Scale : NTS