



Bat Building Assessment

39 Brunswick Hill

Reading

West Berkshire

RG1 7YU

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Notice to Interested Parties

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

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

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EXECUTIVE SUMMARY

- 0.1 This report outlines the findings of a Bat Building Assessment (BBA) of a residential property at 39 Brunswick Hill, Reading, West Berkshire, RG1 7YU. The BBA was carried out by an Arbeco Ltd licensed bat ecologist on 13th September 2017.
- 0.2 The BBA assessed the residential property for its suitability to support bat roosts and nesting birds. This report will be used to inform the proposed re-development of the site which will include the demolition of the existing building and construction of ten flats.
- 0.3 The BBA recorded no evidence of bats and no suitable roosting features on the building.
- 0.4 Due to the lack of features with bat roost suitability the building was considered to **have negligible suitability for roosting bats.**
- 0.5 In accordance with the Bat Conservation Trust's Bat Surveys for Professional Ecologists Good Practice Guidelines (Collins, 2016) no further surveys are recommended.
- 0.6 No evidence of nesting birds was recorded during the survey and the building had no suitable nesting locations for nesting birds.
- 0.7 Biodiversity enhancements should be incorporated into the development and section 6 of this report provides detail on potential enhancements including the installation of bat and bird boxes on suitable mature trees within the site boundary or building on site.

1 INTRODUCTION

- 1.1 Arbeco Ltd were commissioned by Eric Benjamin to undertake an ecological assessment of bat species at 39 Brunswick Hill, Reading, West Berkshire, RG1 7YU to help inform the proposed re-development of the site which will include the demolition of the existing property and construction of ten flats.
- 1.2 The survey involved carrying out a detailed bat building assessment to assess the likelihood and suitability of the buildings on site supporting bat species. The assessment comprised a thorough internal and external inspection of the building for any evidence of bats. The survey also involved assessing the building's potential to support breeding birds.
- 1.3 This report details the results of the bat building assessment.

Legislation

- 1.4 All 17 bat species resident in the UK are fully protected under UK and European legislation. In England bats and their places of shelter or protection are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and within Europe all bat species and their places of shelter or protection are protected Schedule 2 of the Conservation of Habitats and Species Regulations 2010.
- 1.5 These pieces of legislation make it an offence to:
 - Deliberately, intentionally, or recklessly disturb, capture, injure or kill a bat;
 - Obstruct, damage or destroy a place used for shelter or protection; and
 - Damage or destroy a bat roost (breeding site or resting place).
- 1.6 Further details of the legislation are outlined in Appendix 1 and 2.

Site Description

- 1.7 The site comprises a residential property with associated hard standing and garden. The site is located in an urban area in the town of Reading (Ordnance Survey Grid Reference for the centre of the site: SU 70226 73153). The location of the site is shown in Figure 1.1, the extent of the site boundary is shown in Figure 1.2. The buildings on site which were surveyed for bat potential are shown in Figure 1.3.
- 1.8 The site is bordered to the north and south by residential properties, to the east by Brunswick Hill road and to the west by a tree lined railway line.
- 1.9 The habitats in the wider landscape comprise residential properties and commercial areas. The railway line provides suitable foraging/commuting habitat for bats and links the site to Oxford Road Community Garden to the north, and pasture and brooks to the south which may be suitable for foraging bats.

Development Proposals

- 1.10 Detailed development proposals were not available at the time of survey but are understood to comprise the demolition of the existing building on site and the construction of a block of ten flats.

2 METHODS

Desk Study

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

Bat Building Inspection

- 2.1 The methods used in the bat building inspection were based on those recommended in English Nature's Bat Mitigation Guidelines (Mitchell-Jones, 2004), the Joint Nature Conservation Committee's Bat Worker's Manual (Mitchell-Jones and McLeish, 2004) and the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).
- 2.2 The suitability of the building for bat roosting was assessed by examining structural features. Structural features that may influence the suitability of a building to support roosting bats include the presence of a roof void, the presence of access points into the building (including gaps beneath barge boards, soffits and fascias, gaps under lead flashing, gaps within masonry and under loose tiles, gaps between mortise and tenon joints), the complexity and size of any roof void and daytime light levels in the roof void.
- 2.3 The suitability of the building for roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may influence roost potential include whether the structure is in a semi-rural or parkland location, its proximity to significant linear habitat features such as a watercourse, mature hedgerow, wooded lane or an area of woodland.
- 2.4 Taking account of these architectural and habitat features, the building was then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016) and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat survey later in the year, or alternatively to obtain sufficient information that would dismiss the need for further assessment.
- 2.5 A detailed bat building inspection was undertaken on 13th September 2017 by qualified ecologist Dr Stacey Waring (bat licence number 2015-14109-CLS-CLS). An external search around the perimeter of the building was conducted and any possible access points i.e. gaps and crevices were noted and surveyed with the high powered torch, ladder and endoscope as required.
- 2.6 A systematic internal inspection of the building was conducted using a high-powered torch to illuminate all areas thought to be suitable for roosting bats. All surfaces were also surveyed for signs of bat presence.
- 2.7 Features of potential value to bats were surveyed not only for the presence of bats but also for signs that could indicate use by bats, such as:
 - Bat droppings;

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

Survey Constraints

- 2.8 Bats are difficult to locate in large structures, with so many potential roosting areas, particularly in inaccessible areas such as large buildings, finding the exact roosting site can be difficult, especially male/single bat roosting sites.
- 2.9 Bats can have seasonal use of buildings and being so mobile may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason bats may potentially be present but remain undetected, particularly during day time assessment surveys.
- 2.10 There were no site specific constraints to the survey.

3 RESULTS

Building Description

- 3.1 The property at 39 Brunswick Hill was a three-storey, brick built residential property of solid wall construction. The building had a pitched roof covered with slate roof tiles. Dormer windows were located on the east and west elevations.
- 3.2 Photographs of the building are shown in Appendix C.

External Results

- 3.3 No evidence of roosting bats was recorded during the external building inspection.
- 3.4 No suitable roosting features or access points for bats were recorded during the external building inspection. The dormer windows were in good condition and well-sealed, the roof was well sealed with no gaps recorded between tiles or in the mortar. The roof tiles were in place with no lifted tiles and the eaves were sealed with the soffits intact.

Internal Results

- 3.5 The loft had previously been converted into living space and only crawl spaces at the eaves remained, used as storage space at the time of survey. The maximum height of these areas was 1 m. The void was draught free and well-sealed due to the presence of sarking boards throughout. Felt underlay was also present on top of the sarking boards.
- 3.6 No bats, bat droppings or any other evidence of bats was recorded during the internal building inspection.

Nesting Birds

- 3.7 No evidence of nesting birds was recorded during the survey and no suitable nesting features were identified.

4 EVALUATION

- 4.1 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981 (as amended).
- 4.2 No evidence of bats was recorded during the internal or external building inspection and no features suitable for roosting bats were identified on the building.
- 4.3 Due to the lack of suitable roosting features the building was considered to have **negligible suitability to support bat roosts**.
- 4.4 Therefore, it is unlikely that the proposed works will disturb, injure or kill bats that may be using the building to roost and may result in the modification or loss of bat roosts.
- 4.5 No evidence of nesting birds was recorded during the survey and the building had no suitable nesting locations for birds therefore any works to the building are unlikely to affect birds.

5 CONCLUSIONS

- 5.1 The building was considered to have negligible suitability to support bats due to the presence of suitable bat roosting features.
- 5.2 Therefore, it is unlikely that the proposed works will disturb, injure or kill bats that may be using the building to roost and may result in the modification or loss of bat roosts.
- 5.3 No evidence of nesting birds was recorded during the survey and the building had no suitable nesting locations for birds.

6 RECOMMENDATIONS

- 6.1 In the unlikely event that bats are discovered during works all works must cease and the advice of a suitably qualified ecologist sought.
- 6.2 In the unlikely event that nesting birds are discovered during works then works to the area must cease and the nest left *in situ* until the chicks have fledged.
- 6.3 Under the National Planning Policy Guidance document, it is a requirement for the planning system to minimise impacts on and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. In order to conserve and enhance the natural environment the following provisions could be included.
 - Bird and bat boxes could be installed on buildings and/or mature native trees on site.
 - It is recommended that any external lighting on the site is kept to a reasonable minimum and should include downward facing lights so as not to disrupt foraging and commuting bats.

REFERENCES

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

Mitchell-Jones A.J (2004) *Bat Mitigation Guidelines*. English Nature.

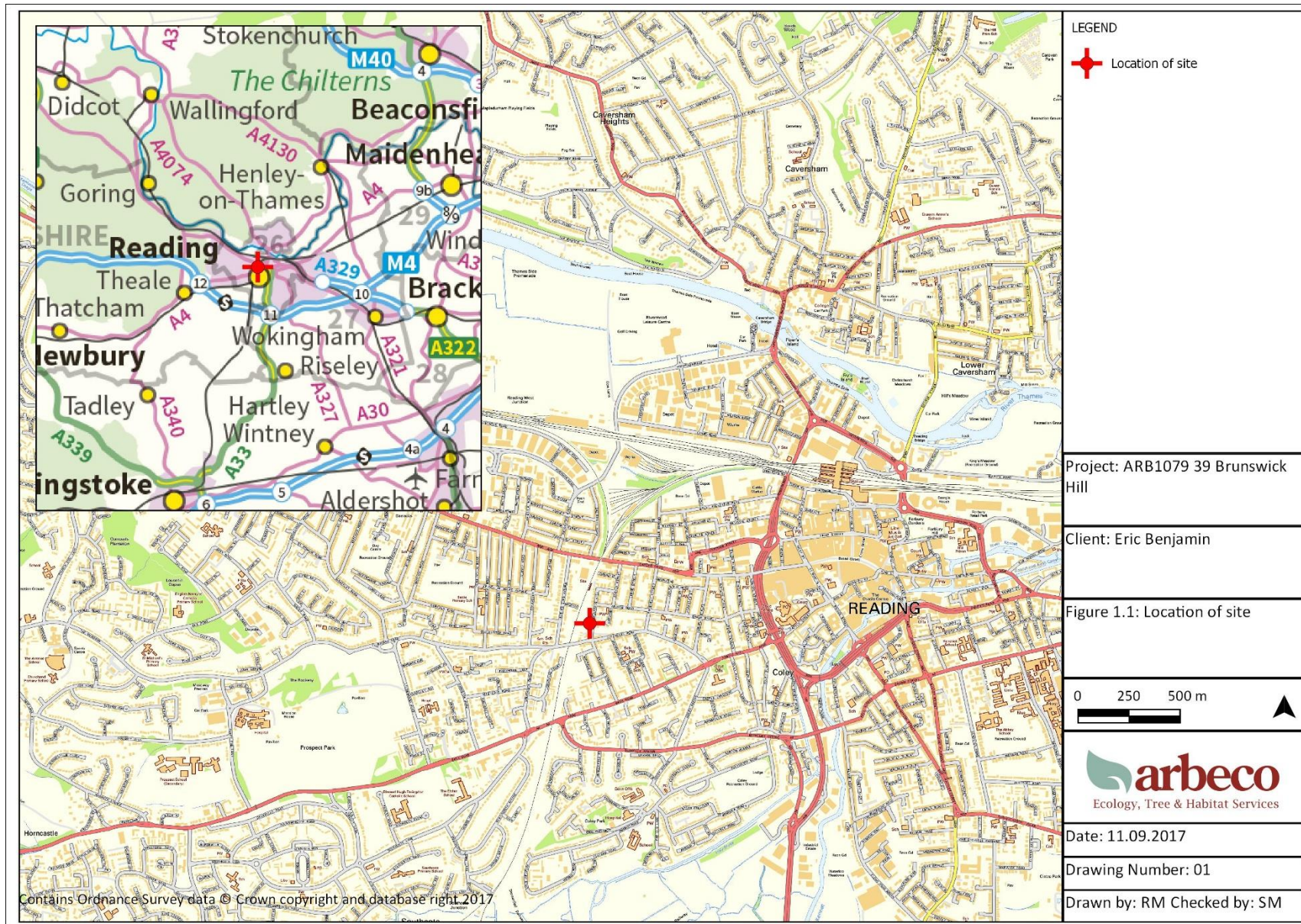
Mitchell-Jones A.J. and McLeish A.P. (2004) *The Bat Workers Manual* 3rd Edition. Joint Nature Conservation Committee.

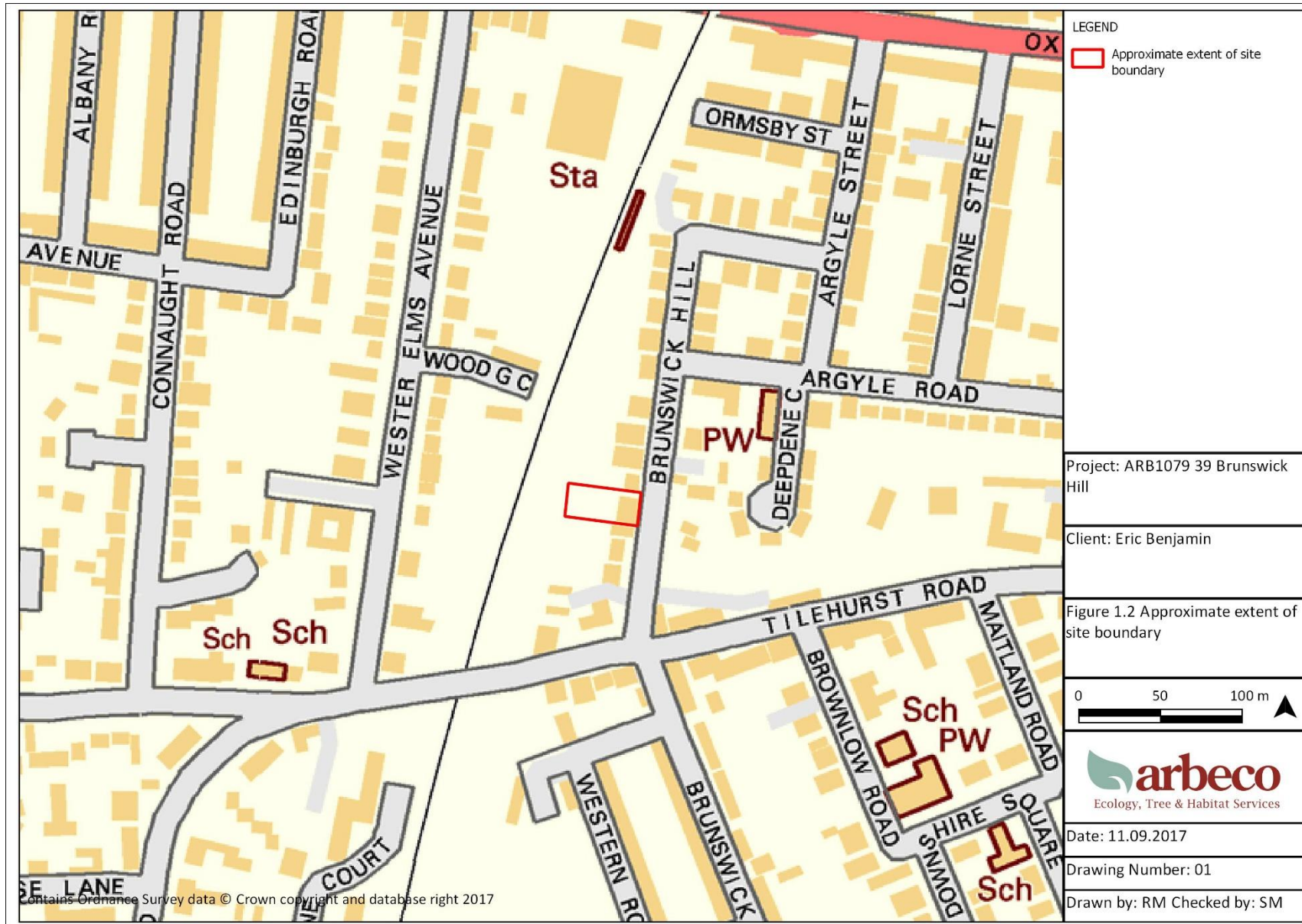
FIGURES

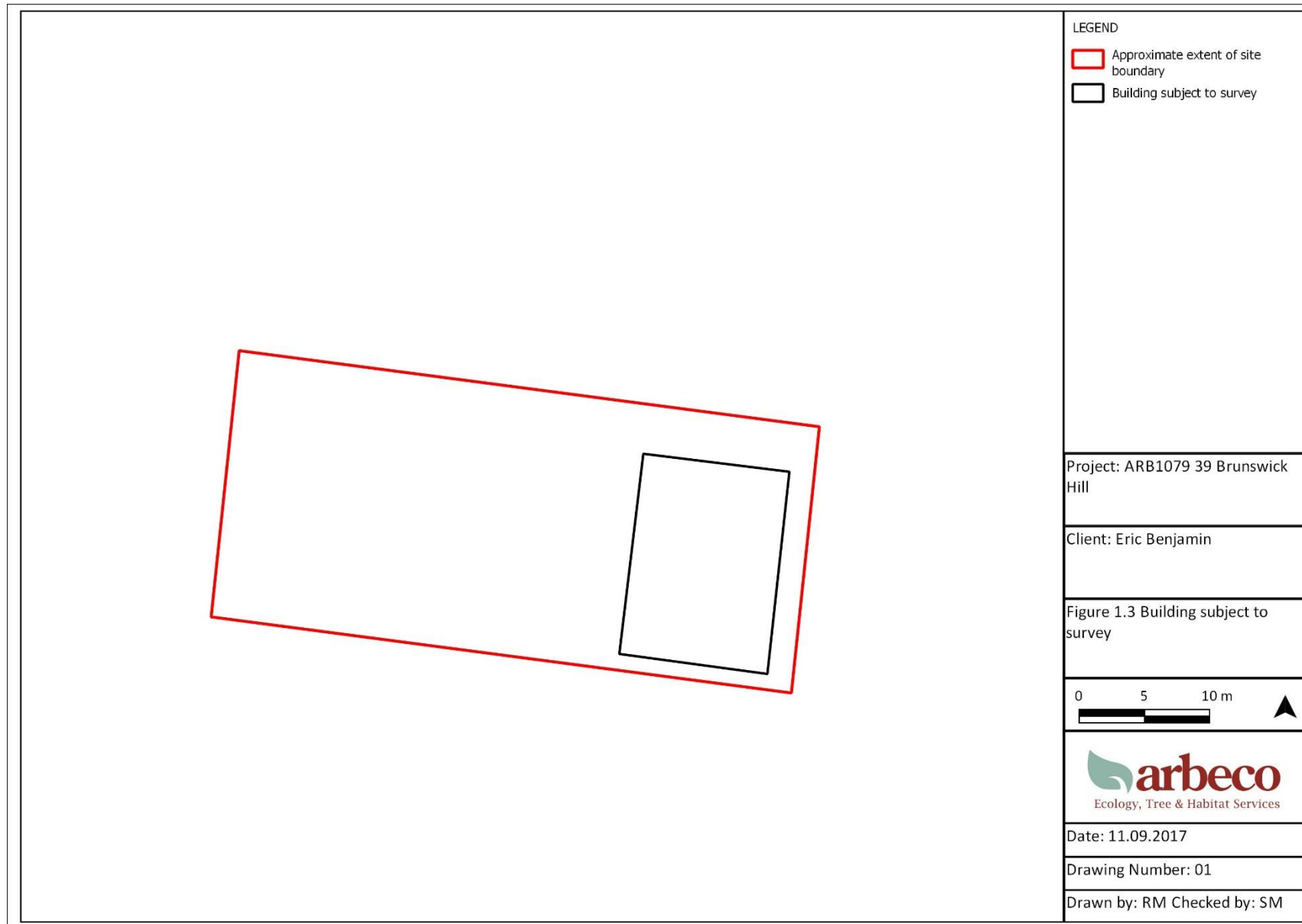
Figure 1.1 Location of site

Figure 1.2 Extent of site boundary

Figure 1.3 Building subject to survey







APPENDIX 1: Legislation relating to bats

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

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

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

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

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

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

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

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

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

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

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

APPENDIX 2: Legislation relating to birds

The Wildlife and Countryside Act 1981 (as amended)

All wild birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981, as amended.

Schedule 1

Applies to all wild birds where it is an offence:

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

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

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

APPENDIX 3: Site photographs



Photograph 1: Eastern elevation



Photograph 2: Eastern and southern elevation



Photograph 3: Northern elevation



Photograph 4: Western elevation



Photograph 5: Crawl space at eaves



Photograph 6: Crawl space at eaves