

The Firs, Church Grove, Hampton Wick, Kingston-Upon-Thames

Ecological Briefing Note

June 2017

1.0 INTRODUCTION

- 1.1 CSA Environmental were instructed to undertake a walkover of the Site to provide details of ecological enhancement measures which could be delivered as part of the proposed development of the Site. The details are understood to have been requested by the Local Planning Authority, London Borough of Richmond upon Thames. In addition an inspection and dusk emergence survey of the single building on-site were subsequently undertaken in respect of its potential to support bats.
- 1.2 The Site occupies an area of c. 0.1ha and is located around central grid reference TQ 17402 69499, Hampton Wick, Kingston upon Thames; situated within a residential area, adjacent to Bushy Park.
- 1.3 The Site currently comprises an unoccupied brick built residential dwelling with gardens to the front and rear. It is understood, redevelopment of the Site is proposed, including the demolition of existing dwelling, and construction of a new dwelling(s).

2.0 METHOD

- 2.1 A brief desktop study was undertaken of the local area to identify pertinent ecological information available online including the use of online search tools and interrogating the Multi-Agency Geographic Information for the Countryside [MAGIC] database.

Site Walkover

- 2.2 A walkover of the Site was conducted in overcast, weather conditions after rain on 30 January 2017 by Alexandra Cole GradCIEEM and Tom Clemence GradCIEEM, encompassing the Site and immediately adjacent habitats that could be viewed. The walkover aims to establish general Site conditions in respect of ecology. This approach is not intended to replace an extended Phase 1 habitat survey or other detailed ecological survey work e.g. for protected species. No access was available to the interior of existing buildings on-site.

Building Inspection

- 2.3 A detailed external and internal inspection of the building on-site was subsequently completed on 06 April 2017 by licenced bat worker Alexandra Cole GradCIEEM (2015-16726-CLS-CLS) with Emma Robson GradCIEEM, using high-powered torches, binoculars and a ladder as appropriate, with the aim of identifying the potential for this structure to support roosting bats.
- 2.4 External inspection focused on identifying potential bat access points to the interior of each structure and any external features that could potentially be used by crevice-dwelling species. Particular attention was paid to window sills, window panes, weatherboarding, and pitch/ridge tiles; as evidence is typically found in these locations.
- 2.5 Internal inspection involved a systematic search for bats or any evidence of their activity, in particular droppings and/or feeding remains.
- 2.6 Following inspection, the structure was categorised in terms of its bat roost potential ('High', 'Moderate', 'Low' or 'Negligible'), based on the criteria set out in the Bat Conservation Trust (BCT) guidelines (2016).
- 2.7 Note that a structure's bat roost potential is influenced by its age and construction, thermal stability, lighting, levels of human activity and proximity to foraging habitat - particularly woodland, parkland and wetland. The degree of bat roost potential is used to determine whether or not further nocturnal survey(s) would be appropriate, and if so, the level of survey effort required.
- 2.8 Based on the findings of the desktop study and walkover recommendations have been provided for ecological enhancement measures which could be integrated within the scheme.

Dusk Emergence Survey

- 2.9 Given the 'Low' roost potential of the building on-site, a single dusk emergence survey was undertaken on 31 May 2017 by licenced bat worker Michelle Bullock MCIEEM (2015-13958-CLS-CLS) and Emma Robson Grad CIEEM to confirm the presence/likely absence of roosting bats in association with this building.
- 2.10 The survey commenced 15 minutes prior to British Summer Time (BST) sunset and continued for at least 1.5 hours, with due consideration for the BCT good practice guidelines.
- 2.11 The positions of the surveyors and the infrared camera rig around the building during the survey are illustrated on the Bat Dusk Emergence Survey Plan in Appendix B.

- 2.12 During the survey, the surveyors watched for any bats emerging from the building or using key flight lines, equipped with Elekon Batlogger M detectors. A note was made of all bat passes, along with the time, species and any information regarding behaviour, including direction of flight, and activity e.g. foraging/commuting.
- 2.13 An infrared video camera rig (Sony Handycam HDR SR5E) was used to film any bats emerging from the weather boarding on the southern gable end of the building. A Wildlife Acoustics EM3 bat detector was affixed to the camera rig to record bat calls and thereby assist with identifying the species of any bats filmed emerging from a roost in association with the building.

3.0 RESULTS

Site Context

- 3.1 Bushy Park and Home Park Site of Special Scientific Interest (SSSI) and Bushy Park/Home Parks Metropolitan Sites of Nature Conservation Importance (SNCl) are situated c. 170m south and c. 250m west of the Site. This SSSI is of special interest for its nationally important saproxylic (dead and decaying wood associated) invertebrate assemblage, population of veteran trees and acid grassland communities. Bushy Park is known to support a wide range of wildlife including 123 nationally scarce or threatened invertebrate species, seven bat species and important urban bird populations. Between the Site and Bushey Park is an area of allotments (6.1ha). The Site is also located 280m west of the River Thames, which is a Metropolitan SNCl.

Site Conditions

- 3.2 The Site comprises a single, unoccupied dwelling surrounded by amenity grassland with ornamental planting and a small number of semi-mature trees. A small shed, constructed of timber and corrugated cement bonded sheet, is located in the north-east of the rear garden. Areas of hardstanding are present to the front and rear of the building. In addition, a concrete lined pond is present in the rear garden; which was dry at the time of survey.

Amenity Grassland

- 3.3 The rear garden of the property is dominated by amenity grassland. Species present include bent grass *Agrostis* sp., false oat-grass *Arrhenatherum elatius*, dandelion *Taraxacum officinale* agg., cleavers *Galium aparine*, herb-Robert *Geranium robertianum* and ragwort *Senecio jacobaea*.

Ornamental Planting

- 3.4 Ornamental planting is present in the front and rear gardens of the property. The planting is mostly restricted to borders around the amenity grassland, however, at the time of survey this was unmanaged and overgrown. Species present include Mexican orange blossom *Choisya ternata*, holly *Hedera helix*, bamboo species, rosemary *Rosmarinus officinalis*, Canadian fleabane *Conyza canadensis*, forsythia *Forsythia* sp., winter jasmine *Jasminum nudiflorum*, cotoneaster *Cotoneaster* sp., rose *Rosa* sp., camellia *Camellia* sp., bramble *Rubus fruticosus* agg. and butterfly-bush *Buddleja davidii*.

Trees

- 3.5 Semi-mature trees are located along the boundaries of the Site, including adjacent to Church Grove and Saddlers Mews. A fallen walnut *Juglans regia* was recorded in the rear garden towards the boundary with Saddlers Mews. Species present include Lawson's cypress *Chamaecyparis lawsoniana*, apple *Malus* sp., holly, yew *Taxus baccata*, lilac *Syringa vulgaris* and ash *Fraxinus excelsior*.

Building Inspection

- 3.6 A single, unoccupied dwelling is located within the south-western half of the Site. The building is set over two storeys and is of brick construction with a partial mock-Tudor frame and a multi-pitched roof. Single storey, flat roofed sections are also present, comprising a single garage and porch area on the south-eastern and north-eastern aspects of the buildings.
- 3.7 The multi-pitched roof is covered by flat clay tiles. The roof tiles appear to be tightly fitted with some moss covering. However, a number of tiles are slipped or missing, presenting potential access points for bats into the internal roof space. Lead flashing appears intact across the roof structure.
- 3.8 Wooden soffit boxes were present along the roof line and are mostly intact. Wooden barge boards above the brick-built entrance surrounding the front door had small gaps between the board and brickwork.
- 3.9 Four dormer windows have been built into the multi-pitched roof, two to the front and two to the rear. The dormers are flat roofed and covered by sheet material, lead flashing bridges the joints between the dormer frame and the tiled roof. The window frames within the dormers are of a PVC construction. Overall these sections appear tight fitted and intact.
- 3.10 Timber weatherboarding is located on the northern and southern gable ends of the building. The boards are loosely fitted with gaps between them, creating potential crevices which may be utilised by roosting bats.

Upon close inspection some of the gaps contained cobwebs with some were clear at the time of survey.

- 3.11 The ground floor windows are wooden framed and appear in deteriorating condition with some small gaps visible.
- 3.12 The single story garage and rear porch area are flat roofed and covered with a bitumen based felt in good condition.
- 3.13 During the internal inspection **no evidence of bats was identified** within any of the ground floor or first floor rooms. Two well-sealed storage areas were located within two rooms on the first floor, no access for or evidence of bats was identified. A single loft hatch was present within a first floor room to the rear of the property. The loft hatch was ajar with insulation on the floor below. Access to the interior of the roof void was constrained by the safety of the timber floor, however, the roof was unlined and light with wooden boarding on the floor which was incomplete in places. No evidence of bats was identified from the entrance to the roof void, with droppings from rodents only. It was not possible to access the rear of the weatherboarding to identify if this was sealed or provided access into the void.
- 3.14 The exterior of the building provides a small number of potential roosting opportunities for individual bats, the majority of which are under weatherboarding on the gable ends of the building. Given that the roof is unlined, whilst lifted tiles provide access to the roof void which may be utilised as a feeding roost, it is unlikely that lifted tiles provide potential roosting opportunities for crevice dwelling bats. Given the light and drafty nature of the internal roof void this space offers very little roosting potential to bats.
- 3.15 A small open sided garden shed is located in the north-east of the rear garden. The shed is constructed of timber and corrugated cement bonded sheet with a concrete floor.

Emergence Survey

- 3.16 **No bats were observed emerging** from the building during the survey. Overall levels of bat activity were low, with common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and noctule *Nyctalus noctula* bats recorded. All of these are common species of bat, likely to be roosting in the adjacent Bushy Park or nearby buildings.
- 3.17 The first bat contact was a noctule recorded at 21.24, 33 minutes after sunset, by surveyors in locations A and B. The bat was observed to be high flying by the surveyor in location B, mostly likely from the adjacent Bushy Park.
- 3.18 The low levels of activity recorded are attributed to bats commuting and foraging over the amenity habitats present on-site.

4.0 DISCUSSION

Recommendations

- 4.1 The building on-site provides a small number of potential roost sites which may be used by individual bats opportunistically and therefore is categorised as having 'low' suitability for roosting bats. Following an emergence survey it has been confirmed that bats are currently '**likely absent**' from the building in line with the BCT guidelines (2016). **No further surveys or precautionary action with regard to bats are recommend.**

Ecological Enhancement Measures

- 4.2 Based on the findings of the desktop study and surveys, ecological enhancement measures are recommended in respect of:
- Bats
 - Hedgehogs
 - Birds
 - Invertebrates (specifically saproxylic species such as stag beetle *Lucanus cervus*)

Bats

- 4.3 Integrated bat boxes, such as the Habibat 001 or 003 (<http://www.habibat.co.uk/category/bat-boxes>) which are suitable for crevice dwelling bat species should be included within the new building on-site. These should be installed on at least two elevations in close proximity to retained or new vegetation, above 3m to avoid predators (i.e. domestic cats) and away from windows or glass features (to prevent staining).

Hedgehogs

- 4.4 Mammal gaps of 13cm should be left at the bottom of garden fences to allow continued movement by hedgehogs and other small mammals throughout the Site and between adjacent gardens/habitats.

Birds

- 4.5 Bird boxes, such as the Schwegler 2GR which are suitable for common garden bird species and designed to protect against predators, should be installed on suitable retained trees within the front and/or communal gardens. These boxes should be and sited 2-4m high, facing north-east. In addition, the Schwegler 2GR boxes have a recess inside the top of the box has been designed to provide opportunities for roosting bats as well as birds.

Invertebrates

- 4.6 To encourage invertebrates, and a range of other wildlife, new tree, shrub and herbaceous planting should wherever practicable include appropriate native species, native cultivars of wildlife value, and/or non- or near- native species of wildlife value. Of key importance is the availability of 'simple' flowers (i.e. not double flowers or complex non-native structures) which allow invertebrates to access nectar sources. Furthermore, planting should also be designed to provide a diversity in structure, both dense and open, to create the requisite local climatic conditions for invertebrates throughout their lifecycle.
- 4.7 To further encourage invertebrates, and specifically saproxylic species such as stag beetle, log piles or 'loggeries' should be created on-site either through the use of felled timber arisings or with the introduction of untreated logs. These features should be sited in partial shade with logs partly buried to provide a range of deadwood conditions.

Appendix A

PHOTOSHEET



Plate 1. Weatherboarding with gaps on south-east gable end.



Plate 2. Section of roof with slipped/missing clay tiles.



Plate 3. Rear of unoccupied residential property.



Plate 4. Rear garden with shed and dry pond.



Plate 5. Timber and corrugated asbestos sheet shed with concrete floor.





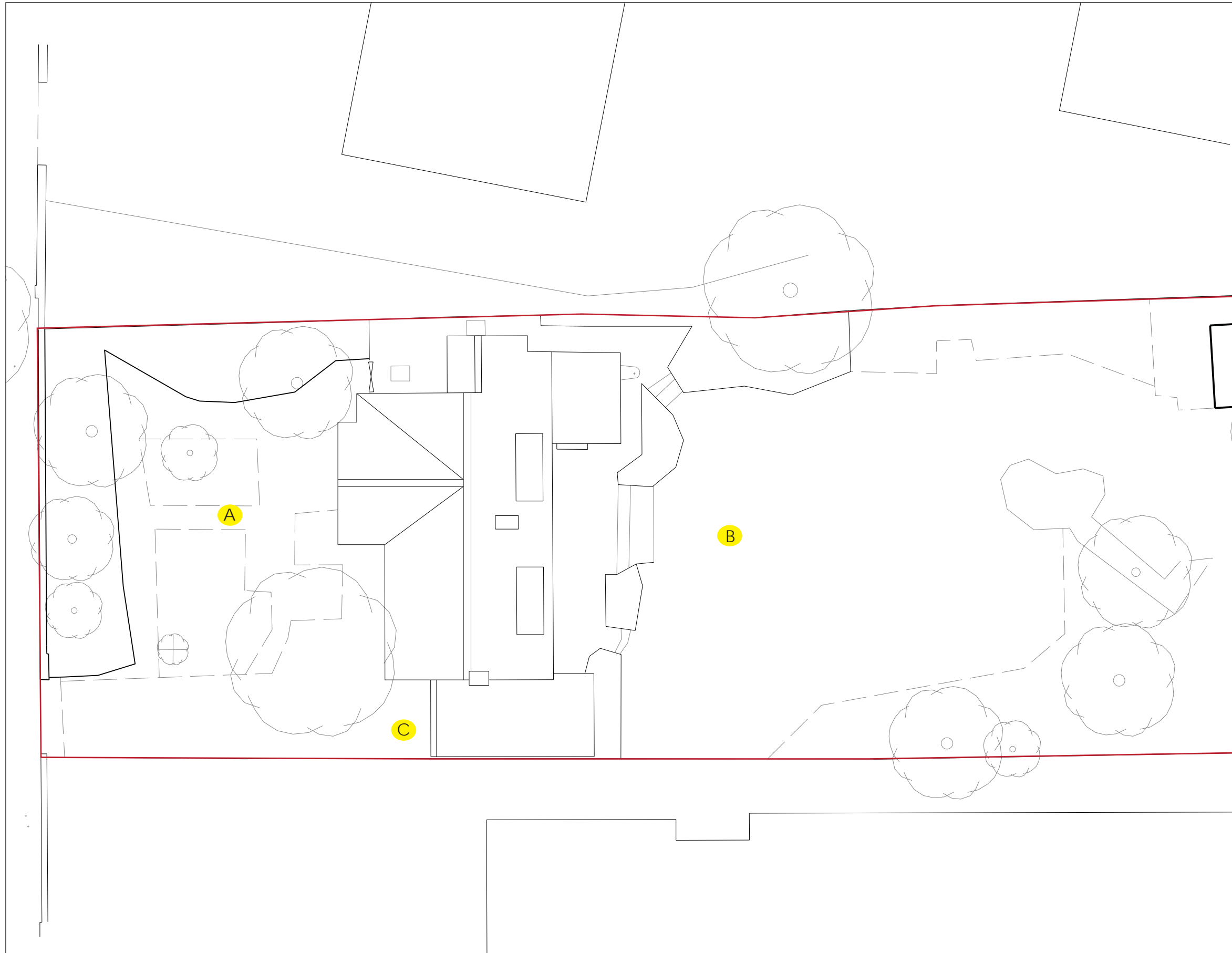
Plate 6. Dry pond lined with concrete slabs and encroaching vegetation.

Appendix B

BAT DUSK EMERGENCE SURVEY PLAN



-  Site boundary
-  Surveyor location



Dixies Barns, High Street,
Ashwell, Hertfordshire SG7 5NT
t 01462 743647
e ashwell@csaenvironmental.co.uk
w csaenvironmental.co.uk

Project	The Firs, Church Grove, Hampton Wick, Kingston-Upon-Thames	Date	June 2017	Drawing No.	CSA/3185/100
Drawing Title	Bat Dusk Emergence Survey Plan	Scale @ A3	NTS	Rev	-
Client	Savills	Drawn	AC	Checked	TC