



Chandlers BMW Dealership

Angmering

West Sussex

**

**Extended Phase 1 Habitat Survey
Internal and External Bat Surveys**

September 2012

Contents

1.0 INTRODUCTION	4
BACKGROUND	4
SITE CONTEXT AND STATUS	4
DESCRIPTION OF THE PROPOSED DEVELOPMENT	4
PLANNING POLICIES	5
2.0 METHODOLOGY	9
DESKTOP STUDY	9
SITE INSPECTION	9
INTERNAL AND EXTERNAL BAT SURVEYS	10
LIMITATIONS	10
3.0 RESULTS	11
DESK STUDY	11
SITE VISIT	11
INTERNAL BAT SURVEY	12
EXTERNAL ASSESSMENT	13
OTHER SPECIES	13
4.0 DISCUSSION	14
ECOLOGICAL VALUE OF THE SITE	14
BUILDING ASSESSMENT FOR BATS	14
OTHER SPECIES	15
ECOLOGICAL ENHANCEMENTS	16
5.0 CONCLUSIONS	17
6.0 REFERENCES	18
APPENDIX 1: PHOTOGRAPHS	19
APPENDIX 2: HABITAT MAP	20

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on a site at a later date.

The views and opinions contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 PJC Consultancy Ltd (PJC) was commissioned by Marshall Clark to undertake an ecological appraisal, at Chandlers BMW, Angmering, West Sussex. The assessment included an extended Phase 1 habitat survey as well as an internal and external bat survey.
- 1.2 This report presents the findings of the ecological surveys in an around the site, which aims specifically to assess the sites potential to support protected species and habitats. Potential mitigation measures and recommendations for the site will be included within this report.
- 1.3 Section 2 of this report sets out the methodology of PJC's survey. In Section 3 the results of the desk and field survey are presented. The discussion and implications for development are found in Section 4. Finally, conclusions are provided in Section 5.

Site Context and Status

- 1.4 The site is situated within the village of Angmering, West Sussex. The site can be found on Water Lane in the centre of the village, just north of the High Street. The immediate surroundings consist of mainly residential properties and small shops with agricultural and pockets of woodland beyond the village boundary. The site is currently as BMW car dealership, with showroom, forecourt and vehicle workshops. A disused cottage is also present on site. The OS grid reference for the site is TQ 06933 04434.

Description of the Proposed Development

- 1.5 The proposed development of the site is for the demolition of the existing buildings and the erection of a number residential properties.

Planning Policies

- 1.6 National and local planning policies may have an affect on the proposed development. The following paragraphs identify relevant planning policies and discuss these in the context of the site.
- 1.7 The United Kingdom Biodiversity Action Plan (UK BAP), published in 1994, is the national response of the Convention on Biological Diversity signed in Rio de Janeiro in 1992. The key objective of the UK BAP is avoidance of harm to ‘Species of Conservation Concern’.
- 1.8 Under the CROW Act (2000) it is now the duty of every Government department in carrying out its functions *“to have regard, so far as it is consistent with the proper exercise of those functions, to the purpose of conserving biological diversity in accordance with the Convention”*.
- 1.9 National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied. Whilst there is no clear definition for sustainable development, the NPPF does now include the UK Sustainable Development Strategy's five guiding principles of sustainable development (Box pg2), namely:
- Living within the planet's environmental limits;
 - Ensuring a strong, healthy and just society;
 - Achieving a sustainable economy;
 - Promoting good governance; and
 - Using sound science responsibly.
- 1.10 Section 11 of the document is entitled ‘Conserving and Enhancing the Natural Environment’. This section highlights the following:

‘The planning system should contribute to and enhance the natural and local environment by:

- *Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *Recognising the wider benefits of ecosystem services;*
- *Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- *Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
- *Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate'*

1.11 In addition to this the following paragraphs are also considered to be relevant:

'In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment. Plans should allocate land with the least environmental or amenity value, where consistent with other policies in this Framework.'

And;

'Planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value. Local planning authorities may continue to consider the case for setting a locally appropriate target for the use of brownfield land.'

1.12 The development site comes under the jurisdiction of Arun District Council. The Arun District Local Plan 2013-2028 is in production, so development in Arun District is currently subject to policies of the Draft Local Plan 2012. The following policies have been identified as being relevant to development of the site and conservation of protected species:

1.13 Policy SP 23 - Natural Environment

'Arun District Council will encourage and promote the conservation and enhancement of biodiversity and the natural environment through policies for the protection of both designated and non-designated sites. Where possible it shall also promote the creation of new areas for habitats and species. In relation to designated sites, development will be permitted where it protects sites listed in Tables 19.1-19.6 that are recognised for the species and habitats contained within them.'

1.14 Policy DM 34 - Designated Nature Sites

'It is the policy of the Council to maintain, protect and where possible enhance the conservation value of International, European, National and Local designated sites as listed in Tables 19.1 - 19.6. Development not directly connected with or necessary to the management of the designated site(s) and which is likely to have an adverse effect on the site(s), will generally not be permitted however such development may be permitted where any of the following can be demonstrated:

- 1. there is no alternative solution (which shall be adequately demonstrated by the developer) or*
- 2. there are reasons of public health or public safety or*
- 3. there are benefits of primary importance to the environment or*
- 4. there are imperative reasons of overriding public interest*

Notwithstanding the above however, the presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.

Where development is permitted, the use of conditions or planning obligations will be used in order to avoid and minimise harm to the site(s). In any event, any adverse impacts shall be minimised and mitigated or compensated in full as agreed with the planning authority.

Developments shall also be consistent with all other local plan policies.'

1.15 Policy DM 37 - Non Designated Sites

'Within Biodiversity Opportunity Areas (BOA's) and the Marine Conservation Zone (MCZ) (see Proposals Map), development shall:

(i) retain and sympathetically incorporate locally valued and important habitats, including

wildlife corridors and stepping stones

(ii) be designed in order to minimise disturbance to habitats

Where development proposals are likely to have an impact on species or habitats within either the BOA's or recommended MCZ, any application for planning permission shall include a properly conducted survey of the presence of that species and habitat and any impact that development may have on either. Development proposals that do not reasonably address opportunities for enhancing BOA's and the recommended MCZ through their design, layout and landscaping shall not be permitted. Where a development scheme would result in a habitat loss, mitigation measures shall be proposed as part of the proposed scheme and such measures agreed with the planning authority prior to the determination of any planning application.

Developments shall also be consistent with all other Local Plan policies.'

- 1.16 The site is not designated a site of nature conservation value nor is the site adjacent to any such designations. However, PJC were instructed to undertake the surveys to ensure that the sites value was assessed and the sites ability to support specially protected species or habitats was identified. These surveys are therefore considered compliant with local policy and legal requirements.

2.0 Methodology

Desktop Study

- 2.1 A desk top study search was completed using two internet-based mapping service (www.magic.gov.uk and www.natureonthemap.org.uk) for statutory designated sites and two internet-based aerial mapping services (www.multimap.com and maps.google.co.uk) were used to understand the habitats present in and around the survey area and habitat linkages and features (such as ponds, woodlands etc) within the wider landscape

Site Inspection

- 2.2 PJC ecologists Tom Rothero BSc (Hons) MSc GradIEEM and Chris Jennings BSc (Hons) MSc GradIEEM, undertook an extended Phase 1 habitat survey, which included assessing the site for the potential for badgers, reptiles, and other protected species on 4th September 2012. The surveyors identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Nature Conservancy Council (NCC). The site was surveyed on foot and the existing habitats and land uses were recorded on a map. In addition, the dominant plant species in each habitat were recorded, as was any evidence of protected species and the habitat suitability for reptiles. The potential for the site to support protected species was also assessed.
- 2.3 The likelihood of occurrence of a particular species is ranked as follows and relies on the current survey:
- Unlikely – while presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. The site may also be outside or peripheral to known national range for a species;
 - Low – on-site habitat of poor to moderate quality for a given species/species group. Presence cannot be discounted on the basis of national distribution, nature of surrounding habitats, habitat fragmentation, recent on-site disturbance etc;
 - Medium – on-site habitat of moderate quality, providing all of the known key-requirements of given species/species group. Factors limiting the likelihood of

occurrence may include small habitat area, habitat severance and fragmentation, disturbance;

- High – on site habitat of high quality for a given species/species group. Good quality surrounding habitat and good connectivity; and
- Present – presence confirmed from the current survey or by recent, confirmed records

2.4 The ecologists on site surveyed for suitable habitats for protected species such as:

- Tussocky grassland and tall ruderal vegetation for reptile species;
- Trees and hedgelines suitable for roosting and foraging bats;
- Trees, hedges and scrub suitable for nesting birds; and
- Suitable habitat for mammal earths such as earth banks.

Internal and External Bat Surveys

2.5 Internal and external bat surveys were undertaken on 4th August 2012 by PJC ecologists Tom Rothero BSc (Hons) MSc GradIEEM and Chris Jennings BSc (Hons) MSc GradIEEM. The surveyors undertook an internal and external examination of the building including all accessible roof voids. The surveyor assessed the buildings visually and searched for evidence such as:

- Staining beneath or around a hole caused by natural oils in bat fur.
- Bat droppings beneath a hole, roost or resting area.
- Bat droppings and/or insect remains beneath a feeding area.
- Audible squeaking from within a hole.
- Insects (especially flies) around a hole.
- Dead bats.

2.6 The cottage surveyed, was accessed during the day. An external investigation assessed the tiles and structural timber joints of the building. This was undertaken in order to see if there were access points readily available for bats to utilise or crevices that bats could be roosting in.

Limitations

- 2.7 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.
- 2.8 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desk Study

- 3.1 The site does not fall within any statutory designated areas. No designated sites fall within 3km of the site boundary.
- 3.2 Several areas of ancient woodland have been located within 2km of site:
- Grooms Copse Ancient & Semi-Natural Woodland – approximately 1.1km north east of site;
 - Beech Copse Ancient & Semi-Natural and Replanted Woodland – approximately 1.3km north west of site.
 - Decoy Pond Wood / Plat / The Lag / Poling Brook Ancient & Semi-Natural and Replanted Woodland – approximately 1.3km north west of site; and
 - Kitpease / Butlers Copses Ancient & Semi-Natural Woodland – approximately 1.7km north of site;

Site Visit

- 3.3 The site consists of semi-improved grassland, amenity grassland, scrub, large areas of hard standing and five buildings. The habitats on site are widespread and common throughout the UK and do not include any UK BAP habitats.

- 3.4 The small area of semi-improved grassland was found within the garden on site and looked as though it has recently been cut with evidence across the whole area of former scrub areas being cleared. The dominant species within this area included species such as perennial rye grass (*Lolium perenne*), red fescue (*Festuca rubra*), Yorkshire fog (*Holcus lanatus*), self heal (*Prunella vulgaris*) and dandelion (*Taraxacum agg.*).
- 3.5 The areas of amenity grassland on site were roadside verges cut very short and well maintained. The dominant species within these areas included species such as perennial rye grass, yarrow (*Achillea millefolium*), dandelion, greater plantain (*Plantago major*) Yorkshire fog, daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*), wall barley (*Hordeum murinum*) and red fescue.
- 3.6 An area of scrub vegetation was located within the garden area of the site. This dominant species within this area include species such as bramble (*Rubus fruticosus*), buddleja (*Buddleja davidii*), germander speedwell (*veronica chamaedrys*), ivy (*Hedera helix*), cleavers (*Galium aparine*), spotted laurel (*Aucuba japonica*) and rose (*Rosa spp.*).
- 3.7 There was also a hedgerow around part of the garden area which consisted of the species cotoneaster (*Cotoneaster spp*) and there were also some scattered trees around the site including ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*) and conifer species.

Internal Bat Survey

- 3.8 An internal inspection of the disused cottage onsite was carried out. The building consisted of a pitched roof with flat roofs to the rear on either end of the property. The roof space within the cottage consisted of one main roof void, with a smaller roof void accessed through a cupboard to the rear of the building.
- 3.9 The main roof void consisted of a tiled pitched roof structure, with a bitumen felt underlay. The roof void has been subject to water damage and a large section of the floor has fallen away.

- 3.10 The smaller roof void ran along the length of the building on the northern side and was very low and narrow. The void was of the same construction as the main void.
- 3.11 Dense cobwebs were present within both roof voids indicating a lack of internal bat movement. No bats, droppings or other evidence of roosting bats was found during the internal inspection.

External Assessment

- 3.12 The cottage comprised of a main pitched and tiled roof, which in the most part was in a good state of repair, however there were some lifted and missing tiles giving potential access point to the roof. The front of the cottage was also covered in dense ivy cover, which gives some opportunities to crevice dwelling species such as common pipistrelle (*Pipistrellus pipistrellus*).
- 3.13 No evidence of roosting bats such as staining, droppings caught in cobwebs on external walls or on the ground beneath the dense ivy cover was recorded.
- 3.14 The other buildings on site were of unsuitable construction for roosting bats being predominantly metal and glass in construction. Other buildings on site also lacked internal roof voids.

Other Species

- 3.15 The site consists mainly of large areas of hard standing with one small area of ornamental garden around the cottage on site. This has created an area with no suitable habitat to support protected species. This area was small in nature and highly fragmented, with no direct habitat linkages, further reducing its potential to support protected species.
- 3.16 Birds are likely to use the trees and hedgerows found on the boundaries of the cottage site for foraging and breeding. It is recommended that any works on site be carried out outside of the breeding season, which is March-September.

4.0 Discussion

Ecological Value of the Site

- 4.1 The site is located within the West Sussex village of Angmering. The site is currently a Chandlers BMW dealership and garage. The site largely consists of hard standing and commercial buildings. There is one residential dwelling on site with a small garden, which contains small areas of semi-improved grassland, scrub, a hedgerow, and some trees. There are also areas of road verge amenity grassland on the edge of the site. All habitats are common and widespread throughout the UK and are considered to be of limited ecological value at site level only.
- 4.2 It is considered that the potential re development of the site is not constrained by ecological issues. The site does not support protected species or habitats. The proposed re development would not have an effect on the sites nature conservation value or that in the local area. Indeed it is considered that with enhancements to the proposed development, the ecological value of the site, post development, may well be higher than current.

Building Assessment for Bats

- 4.3 There were five buildings in total on site of which were car show areas and offices with attached garage areas, a car wash and garden shed of timber construction. None of these buildings were considered to have potential for roosting bats as they were of mostly metal and glass construction and have corrugated or flat roofs with the exception of the garden shed. None of these buildings seemed to house enclosed roof voids. Only the cottage on site was thought to have potential for roosting bats.
- 4.4 The cottage contained two roof voids, a large main void within the main tile pitched roof and a smaller void that runs the length of the rear of the building created by a dormer at the rear of the building. This void was accessed through a cupboard in one of the upstairs rooms.
- 4.5 The main roof void was surveyed accessed through the main loft hatch. The void itself was very hot and there was a large hole in the ceiling to the room below. The likely cause

- of the hole is thought to be a leaking water tank. The hole let light into the eastern end of the void illuminating that end of the roof void. There were dense cobwebs throughout the void but concentrated at the apex, which would suggest a lack of bat activity within the void itself. No evidence of bat activity such as roosting bats, droppings or feeding remains was found within the main void.
- 4.6 The smaller roof void was of similar structure to the main void with external tiles, bitumen felt and internal beams. The void its self was narrow, low and hot with dense cobwebs throughout suggesting low internal bat activity. No evidence of bat activity such as roosting bats, droppings or feeding remains was found within the main void.
- 4.7 Externally, the building did exhibit features associated with roosting bats such as lifted and missing tiles on the roof itself which act as potential access points to bats. The front of the cottage is also covered in dense ivy cover, which can act as a potential roosting habitat for crevice dwelling species. No evidence of bat activity such as staining or droppings was found externally around the building.
- 4.8 Due to the lack of evidence of bat activity found within the voids and externally around the cottage it is thought unlikely that bats are using the building for roosting. Due to this fact the site is not considered to be constrained by bats.

Other Species

- 4.8 The site consists mainly of large areas of hard standing with one small area of ornamental garden around the cottage on site. This has created an area with no suitable habitat to support protected species with no opportunities for foraging, hunting or breeding. The site is not considered to be constrained by the presence of protected species.
- 4.9 Breeding birds are likely to use the tree lines on site as nesting habitat. The UK breeding season for most bird species takes place between March and September. It is recommended that any works affecting the tree lines on site be carried out outside of this period.

Ecological Enhancements

- 4.10 A number of enhancements can be made to the final development to help reduce potential ecological impacts and provide a net gain in ecological opportunities and increase biodiversity. It is important to utilise native species of local provenance in landscaping schemes to enhance the ecological value of a development.
- 4.11 Bird boxes may be hung on retained mature trees to increase the number of breeding opportunities throughout the site. Recommended boxes include:
- Schwegler 1N Deep Nest Box – give added nest protection from predators
 - Schwegler 1B Bird Box – general purpose bird box, suitable for many species
- 4.12 Installation of bat boxes will also enhance the number of roosting opportunities for bats in the local area. Boxes should be hung on mature trees and have clear flight paths. Bat boxes can also be established on the walls of the new proposed houses. Recommended boxes include:
- Schwegler 2F – This box simulates crevices inside to allow suitable habitats for crevice-dwellers. Two of these are recommended for the site.
 - Schwegler 1FD – This box is a larger version of the 2F. One of these is recommended for the site.
 - Schwegler 1FQ (for external walls) – these boxes are suitable as both a roost and nursery. Two of these can be established on the walls of the new houses.
- 4.13 Insect boxes can also be used within this semi urban environment. Such items as wooden bug boxes can be hung on fences and trees and shrubs, encouraging lace wings and lady birds into the gardens of the proposed new houses.
- 4.14 Using species which are native in the new planting scheme is considered to be the most important enhancement on such a site. Grass mixes can be used which have a higher species diversity than amenity grassland. These are recommended for any grass area in the new scheme.

- 4.15 Climbing plants can be used to enhance the buildings, walls or fences themselves, making them of some value to wildlife within the built environment. Climbing plants provide excellent habitat opportunities on the vertical plane and provide connectivity between the ground level and rooftops and can provide habitat opportunities for some invertebrate and bird species. A combination of species, such as honeysuckle (*Lonicera periclymenum*), jasmine (*Jasminum officinale*) or ivy (*Hedera helix*) could be used. Bird and insect boxes could be positioned on walls so that climbing vegetation eventually surrounds them. This will provide a wider range of habitat niches.
- 4.16 Native trees can be incorporated into the landscaping scheme. Species which can be used includes: hazel (*Corylus avellana*), field maple (*Acer campestre*), wayfaring tree (*Viburnum lantana*), and apple trees (*Malus sylvestris*).

5.0 Conclusions

- 5.1 The habitats found on site are common and widespread throughout the UK and are considered to be of limited ecological value at a site level only. The site mainly consists of hard standing, which greatly reduces the likelihood of supporting protected species due to the reduction in foraging habitat and safe refuge from predators. The site is not thought to be constrained by any protected species.
- 5.2 The cottage on site was the only building thought to have potential for roosting bats as it exhibits a tiled roof with lifted and missing tiles in places giving potential access point for bats into the roof void. On inspection of the internal voids no evidence of bat activity was found. The site is thought to be under no constraints from bats.
- 5.3 Enhancements for the site have been recommended which includes adding features such as bat and bird boxes into newly established gardens. The use of native species in planting schemes is considered to be the most significant in terms of creating new habitats within the site.

6.0 References

CIRIA C567 (2005) *Working with wildlife – site guide*. CIRIA, London.

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

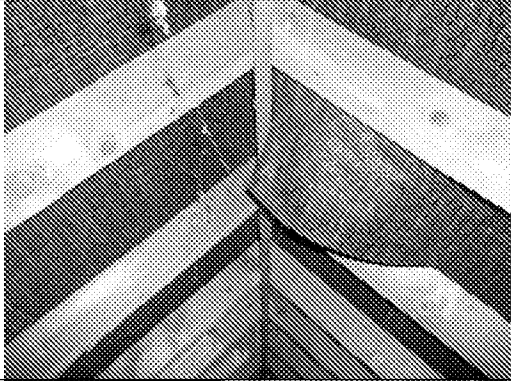
Bat Conservation Trust (2007). *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

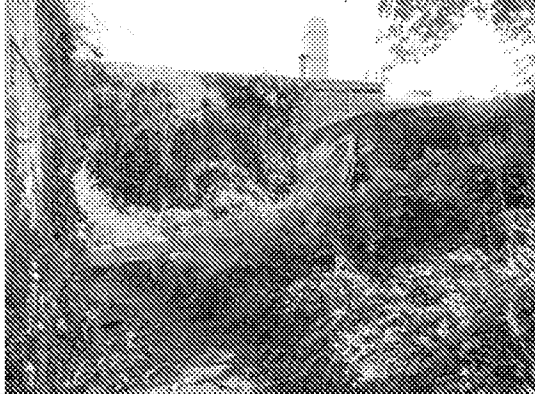
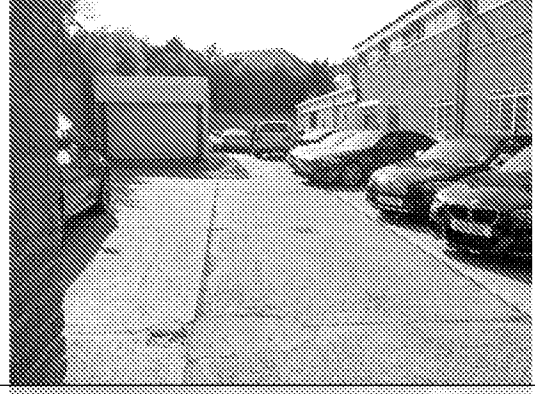
Internet resources:

Google Maps: www.maps.google.co.uk

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Photographs

Photograph 1: Internal structure of the cottage main roof void	
Photograph 2: Internal structure of the cottage main roof void	
Photograph 3: Internal structure of the cottage main roof void	
Photograph 4: Internal structure of the cottage smaller roof void	

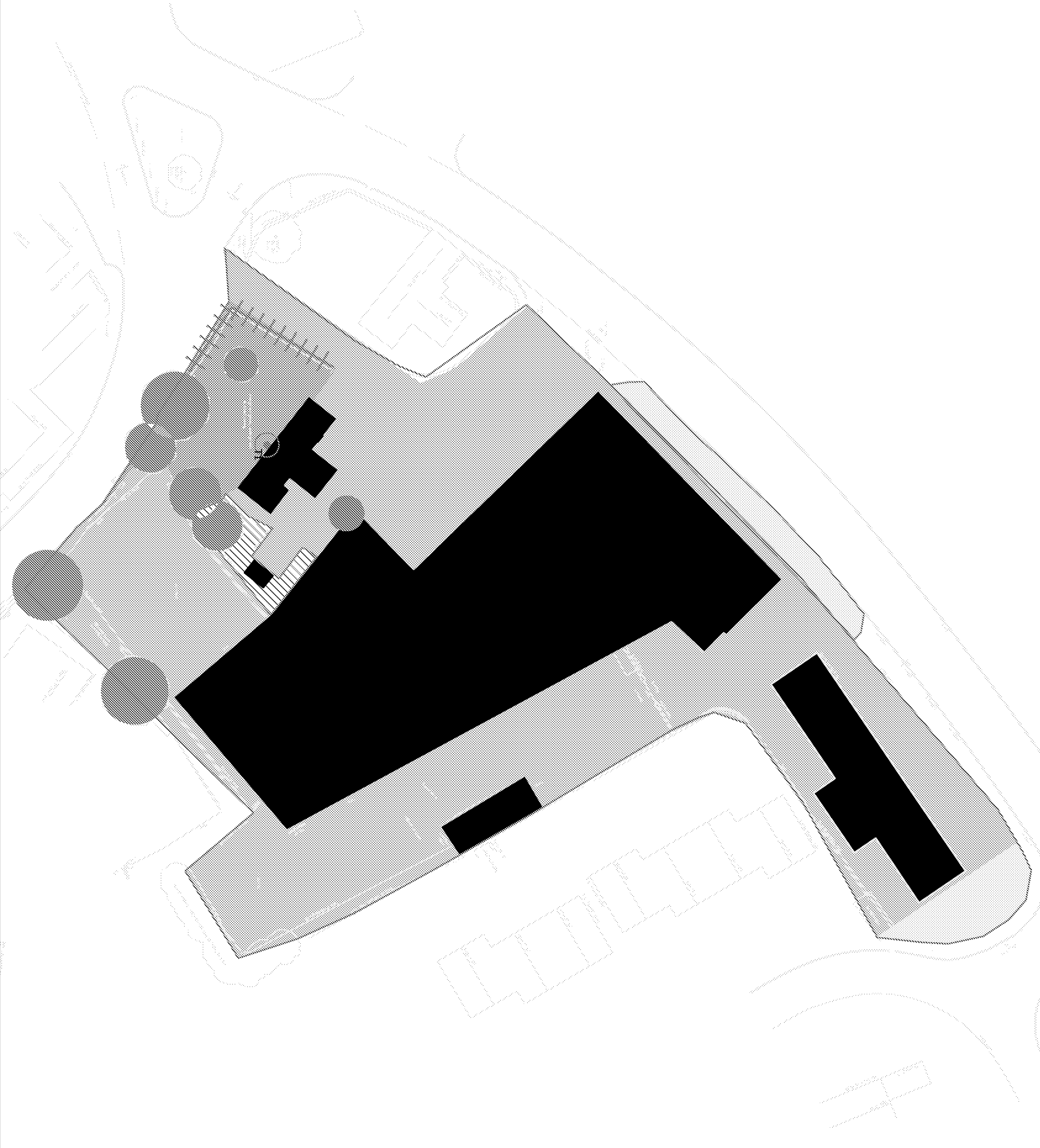
Photograph 5: Cottage front with dense ivy cover	
Photograph 6: Area of scrub in the unmaintained area of the cottage garden	
Photograph 7: Area of hard standing and flat roofed buildings	
Photograph 8: Area of hard standing and flat roofed buildings	

Photograph 9: Rear view of cottage	
Photograph 10: Area of hard standing with flat and metal roofed buildings	
Photograph 11: Hard standing and flat roofed building	
Photograph 12: Hard standing and flat roofed garages	

Appendix 2: Habitat map

Key

-  Neutral semi-improved grassland
-  Amenity grassland
-  Buildings
-  Hard Standing
-  Scrub
-  Site boundary
-  Hedge
-  Scattered trees
-  Internal Bat inspection



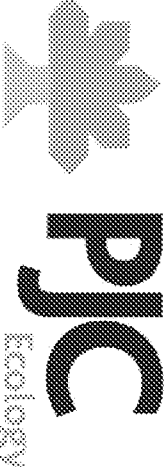
Site: Chandlers BMW, Angmering

Client: Marshall Clark

Surveyor: T. Rothero

Survey Date: 4-9-12

Drawing Title: Phase 1 habitat map



PJC Consultancy
Chapter House, Priesthaves Farm, Hailsham Road,
Polegate, East Sussex, BN26 6QU
t: 01323 768155 f: 01323 768244 w:
www.pjcconsultancy.com

PJC Consultancy Ltd

Chapter House

Priesthawes Farm

Hailsham Road

Polegate, East Sussex

Tel. 01323 768 155

Fax. 01323 768 244

www.pjeconsultancy.com

Written by: Tom Rothero BSc (Hons) MSc GradIEEM, Ecologist

Approved for PJC by: Alexia Tamblyn MA (Oxon) MSc MIEEM FRGS, Managing Director

Date: 13/09/12