

Preliminary Ecological Appraisal

6 Manor Road

Rustington, West Sussex

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing. Whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date. This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated, only dominant species may be recorded.

The recommendations 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

1.1 The Ecology Partnership was commissioned by Rodway Planning to undertake a preliminary ecological appraisal (PEA) at 6 Manor Road, Rustington, Littlehampton, West Sussex, BN16 3QT.

1.2 The key objectives of a PEA (CIEEM 2017) are to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

1.3 This report comprises:

- The legislative and planning context (Section 1);
- Assessment methodologies (Section 2);
- Results (Section 3);
- Implications for development, including an impact assessment (Sections 4 and 5);
- Conclusions (Section 6).

Site Context

1.4 The site is located on to the south of Manor Road in the Arun District of West Sussex (TQ 04978 02877). The site consists of an existing dwelling and associated garden and hardstanding (Figure 1). The wider landscape consists of high-density housing, industrial units and the A259.

1.5 The proposals for the site are to demolish the western garage and to building a second dwelling to the rear of the existing house, which will be refurbished.



Figure 1: Approximate location of the red line boundary and survey area

Relevant Planning Policies and Legislation

1.6 The site was surveyed to assess its ecological value and to ensure the proposals were compliant with relevant planning policy and legislation. Policy guidance is provided by the National Planning Policy Framework (NPPF 2019) as well as the Arun Local Plan (adopted in July 2018). Local policies relating to ecology include:

- Policy GI SP1 – Green Infrastructure and development
- Policy ENV SP1 – Natural Environment
- Policy ENV DM1 – Designated Sites of biodiversity or geological importance
- Policy ENV DM4 – Protection of trees
- Policy ENV DM5 – Development and biodiversity

1.7 The assessment also takes into consideration nature conservation and wildlife legislation including, but not limited to, the Wildlife and Countryside Act 1981 (as amended), the

Natural Environment and Rural Communities (NERC) Act 2006 and the Conservation of Habitats and Species Regulations 2010.

- 1.8 The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an aerial mapping service (maps.google.co.uk) to understand the habitats present in and around the survey area, including identifying habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

Preliminary Ecological Appraisal

- 2.2 A preliminary ecological appraisal (PEA) was undertaken on 30th January 2020 by ecologists Natalie Kay BSc (Hons) MSc MCIEEM and Joel Cronin BSc (Hons) MSc QCIEEM. This included an assessment of both the habitats and protected species potential of the site.

Phase 1 Habitat Survey

- 2.3 The surveyors identified the habitats present, following the standard ‘Phase 1 habitat survey’ auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). The dominant plant species in each habitat were recorded, where appropriate.

Protected Species Assessments

- 2.4 Any evidence of protected species was recorded. Standard survey methods for finding evidence and assessing presence or likely absence based on habitat suitability were used for bats in trees and buildings (Collins 2016), breeding birds (BTO 2020), hazel dormice (Bright *et al.* 2006), great crested newts (ARG 2010), reptiles (Froglife 2015), badgers (Creswell *et al.* 1990) and water voles (Strachan *et al.* 2011).

Limitations

- 2.5 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. The site was visited over the period of one site visit. As such, seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.
- 2.6 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

Desktop Study

- 3.1 The site does not fall within or adjacent to any national or international designations and there are none within 2km of the site. The closest statutory designation is West Beach Local Nature Reserve (LNR) approximately 2.6km southwest.

- 3.2 There are some units of priority deciduous woodland within 2km of the site (Figure 2). The closest are an unnamed woodland approximately 1km north and another approximately 1.3km northeast. There is also an area of priority coastal vegetated shingle approximately 1.4km south.

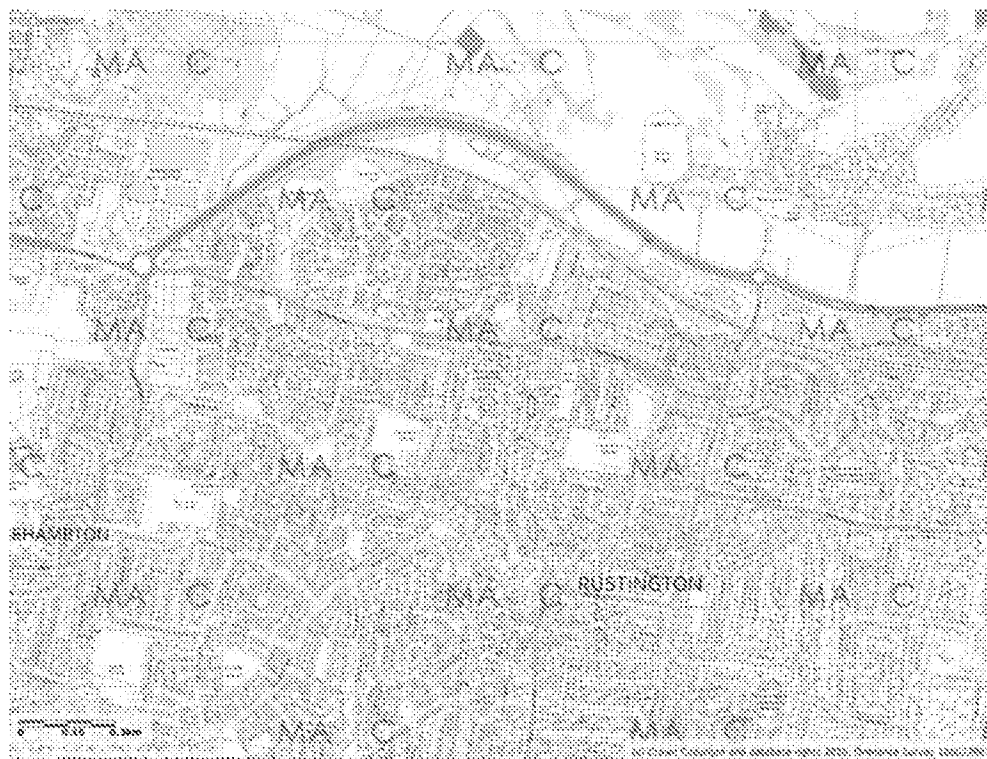


Figure 2: Priority deciduous woodland (green) surrounding the site (red line)

- 3.3 OS mapping shows that there are no ponds within a 250m buffer of the site and there are none visible within the wider landscape, which is highly developed.

Phase 1 Habitat Survey

Buildings and Hardstanding

- 3.4 A single dwelling lies in the northern portion of the site with hardstanding forming the driveways leading to the garages and paths in the garden. There were also patches of hardstanding in the southwest corner where outbuildings previously stood.

Amenity grassland

- 3.5 The site was dominated by amenity grassland in both the front and back gardens. This was relatively species-poor and dominated by perennial ryegrass (*Lolium perenne*). Other species included annual meadow grass (*Poa annua*), red fescue (*Festuca rubra*), dandelion (*Taraxacum agg.*) and bryophytes.

Bare ground

- 3.6 Areas of bare ground were present in both the rear and front gardens.

Introduced shrub

- 3.7 A selection of shrubs remained in the front garden around the dwelling. These were ornamental species and included rose and a bay tree (*Laurus nobilis*).

Protected Species

Bats

- 3.8 The main dwelling was a brick building with a clay-tiled roof. Multiple gaps were noted under the roof tiles which could offer opportunities for crevice-dwelling bats. This building is to remain in situ and will not be significantly altered as part of the proposals. As such, an internal survey of the house was not carried out.
- 3.9 Two garages were present on either side of the dwelling (eastern and western aspects). The garage on the western aspect is to be dismantled to provide an access route to the new dwelling at the rear. Both garages had low-angled felt-lined rooves with intact soffit and barge boarding. They were also well-sealed with south-facing windows and no potential crevices suitable for roosting bats. No evidence of bats was found in either garage. As such, both structures were considered to have negligible roosting bat potential.

Other Species

- 3.10 A handful of small mammal holes were found in the rear garden, likely to have been made rabbits and/or other small mammals. They did not appear to be in current use due to cobwebs over the holes or vegetation growing over the entrances.
- 3.11 The site did not support any suitable habitat for other protected species, such as great crested newts, reptiles or dormice. The grassland was short and appeared to be regularly managed making it unsuitable for common reptiles and amphibians.

4.0 Discussion

Effects on Designated Sites

- 4.1 The site does not fall within or adjacent to any designations and there are none within 2km of the site. Given the small scale of the proposals (an increase of 1 dwelling only) and its distance from these designations, it is considered that the proposals would not have any adverse impacts on these protected areas. As such, there are no further considerations with regards to local policies ENV SP1 (Natural Environment) and ENV DM1 (Designated Sites of biodiversity or geological importance).

Effects on Habitats

- 4.2 The closest priority habitats to site are to units of priority deciduous woodland over 1km away. Again, given the nature and scale of the proposals, which will be restricted to the red line boundary, it is considered that none of the priority habitats in the local landscape will be affected and are sufficiently buffered from the site.
- 4.3 The habitats within the red line boundary are limited to a building, hardstanding and species-poor grassland and shrubs. These are common within the local area and the UK as a whole. As such, the proposals will not result in a loss of any important habitats or green infrastructure. Therefore, the proposals are compliant with local policy G1 SP1

(Green infrastructure and development) and Policy ENV DM4 (Protection of trees) is not relevant in this case as no trees were found on site.

Effects on Protected Species

Bats

- 4.4 The garages had negligible roosting bat potential. As such, the western garage can be dismantled without further consideration for bats. However, care should be taken to ensure the house and its roof are not damaged during demolition.
- 4.5 The house could only be assessed externally and the gaps under the roof tiles mean it has roosting bat potential. The proposals will not impact the roof or the internal void. However, any refurbishment works in the future which could impact the void or the roof will require an internal inspection and further bat surveys.
- 4.6 Any proposed lighting scheme as part of the proposals will have to consider bats that may use the site and the surrounding area. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Light can affect both their roosting and foraging behaviour. This needs to be considered with a sympathetic lighting scheme. Recommendations include:
- Installing lighting only if there is a significant need;
 - Using LED luminaries due to their lower intensity, sharp cut-off and good colour rendition – any lights with UV elements or metal halide lights should not be used;
 - Lights with an upward light ratio of 0% and good optical control;
 - Careful consideration of column height to avoid light spill;
 - Any external security lights should use motion-sensors and short (1-minute) timers.

Other species

- 4.7 Mammal burrows were found in the rear garden. These should be excavated sensitively using hand tools to prevent harm to any animals that may be inside. Under the Wild

Mammals (Protection) Act 1996, it is an offence to crush or cause asphyxiation to mammals.

Ecological Enhancements

- 4.8 Local policy ENV DM5 (Development and biodiversity) requires developments to seek to achieve a net gain in biodiversity and incorporate a range of ecological enhancements. The following recommendations aim to significantly enhance the biodiversity on site post-development.
- 4.9 New roosting opportunities can be created by integrating bat boxes/tubes in the new dwelling (Figure 3). These provide good opportunities for crevice-dwelling species such as pipistrelles. The opening of the bat box/tube will be the only section visible and they are designed so that they require no maintenance. The bat tubes will be installed as high as possible, will not be situated above a window to avoid cat predation and will not be illuminated by artificial lighting. Schwegler or Habibat tubes should be used (Figure 4). A booklet should be created for future home owners informing them of the tubes' purpose and the legal protection surrounding bat roosting sites.

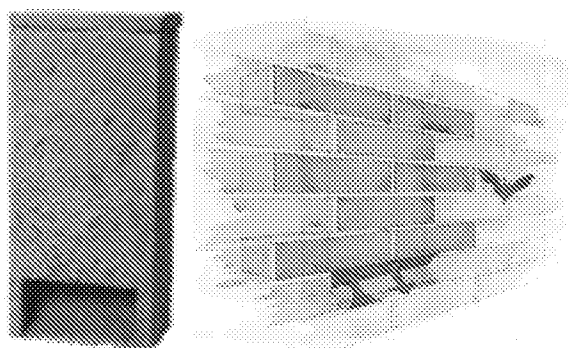


Figure 3: Schwegler 2FR tube (left) and Habibat 003 Bat Box (right)

- 4.10 New tree planting should include native species of value to wildlife such as oak (*Quercus robur*), hazel (*Coryllus avellana*), holly (*Ilex aquifolium*), wild cherry (*Prunus avium*) and apple (*Malus sp.*).

-
- 4.11 New shrub and herb planting will take place in the gardens. Native species should be used, where possible, which provide food sources throughout the year. Recommended species include bilberry (*Vaccinium myrtillus*), privet (*Ligustrum vulgare*), yew (*Taxus baccata*), spindle (*Euonymus europaeus*), buckthorn (*Rhamnus cathartica*), heather (*Calluna sp.*), rosemary (*Rosmarinus officinalis*), lesser catmint (*Calamintha nepeta*) and wild marjoram (*Origanum vulgare*).
- 4.12 The grassland will be enhanced by increasing its species richness with an appropriate seed mix and areas of bare earth will be sown with the same mix. This will include species tolerant to regular mowing as found in the EL1 flowering lawn mixture from Emorsgate Seeds. Species include lady's bedstraw (*Galium verum*), bird's-foot trefoil (*Lotus corniculatus*), meadow buttercup (*Ranunculus acris*), common bent (*Agrostis capillaris*) and crested dogtail (*Cynosurus cristatus*).
- 4.13 Green walls should be created by using trellis on new and existing fences and on the side of new buildings, such as garages, where appropriate. They provide new niches and habitats for a range of wildlife, including birds and invertebrates. Climbing species of value to wildlife include clematis (*Clematis montana*), jasmine (*Jasminum officinale*), honeysuckle (*Lonicera perichlymenum*) and climbing hydrangea (*Hydrangea petiolaris*).
- 4.14 New nesting opportunities should be provided by installing bird boxes on site. An integrated bird box for sparrows or starlings can be installed in the new dwelling. Some boxes are designed to match the brickwork, such as those by Ecosurv (Figure 4). Boxes could also be installed on fences within a green wall or on the side of the new garage. Examples include the Vivara Pro Seville woodstone nest box and the Schwegler 1MR avianex box, both of which are long-lasting (Figure 4).

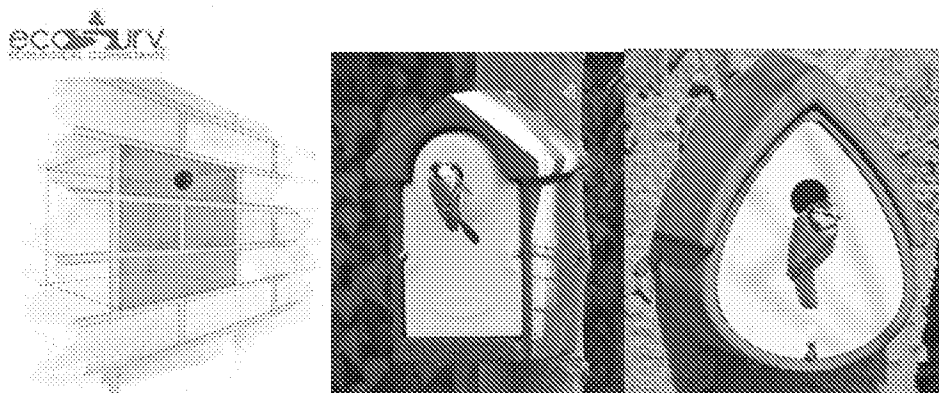


Figure 4: Integrated starling/sparrow box (left), Vivara box (centre) and Schwegler box (right)

- 4.15 Where possible, fencing will be made hedgehog-friendly on site by creating a 13cm x 13cm hole at the base. This species is declining, in part, due to isolation of habitats and a local of connectivity. As such, these holes provide passageways for hedgehogs to travel between gardens. To ensure that new residents do not block these, small signs will be painted or erected above the hole, such as those produced by the People's Trust for Endangered Species, informing them of their purpose (Figure 5).

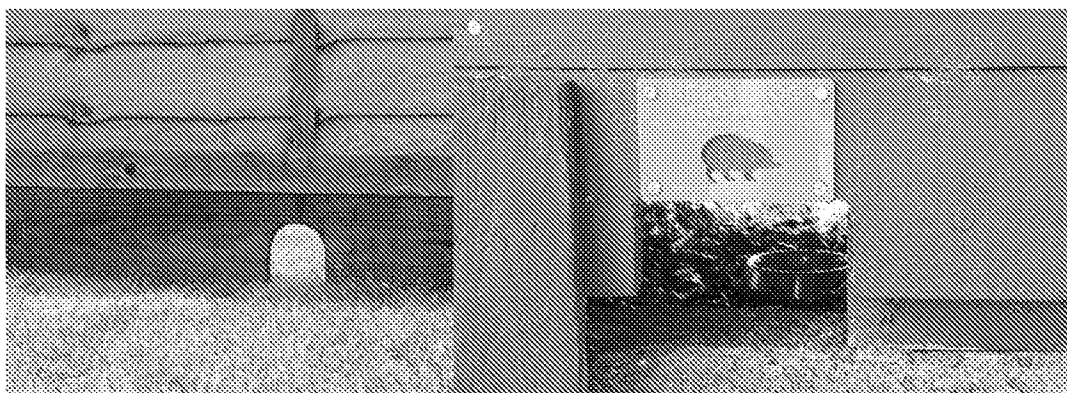


Figure 5: Hedgehog-friendly fencing and 'highway' signage (hedgehogstreet.org)

5.0 Impact Assessment

- 5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site or within the local area.

Methodology

- 5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed and mitigation and compensation measures are outlined which help to reduce negative impacts.

Baseline Ecological Conditions

- 5.3 The site is considered to have the **potential** to support the following important ecological features:
- Bats;
 - Burrowing small mammals.

Impact Assessment and Mitigation

Bats

- 5.4 The proposals will not impact the main house which has some roosting bat potential. As such, no residual effects are predicted. However, bats should be considered when undertaken any future refurbishments.
- 5.5 Foraging and commuting bats may be present in the local area. A sensitive lighting scheme will be employed on site. Therefore, no residual effects are predicted.

Burrowing mammals

- 5.6 Small mammal burrows are present in the rear garden. Any mammals which may be present within the burrows are protected under the the Wild Mammals (Protection) Act 1996 from crushing or asphyxiation. This burrows will be excavated sensitively using hand tools to prevent any harm. As long as this method is followed, no residual effects ae predicted.

Cumulative impacts

- 5.7 The scheme should also be considered in conjunction with other surrounding proposals in order to determine cumulative impacts on ecological features. All surrounding applications within the last 5 years appear to be restricted to conversions and extensions to existing dwellings. As such, it is considered that this development can be considered in isolation.

6.0 Conclusions

- 6.1 The site does not lie within or adjacent to any designated sites. It is considered that the development will not lead to any significant impacts on these protected sites or surrounding habitats due to the scale of the proposals and the distances involved.
- 6.2 The western garage has negligible roosting bat potential and can be removed without further consideration for bats. The house has at least low roosting bat potential and any future refurbishments which may affect the void and/or roof will require further surveys. A sensitive lighting scheme has been recommended.
- 6.3 The small mammal holes in the rear garden should be excavated sensitively with hand tools as any mammals which may be present are protected from crushing or asphyxiation under the Wild Mammals (Protection) Act 1996.

- 6.4 Owing to a lack of suitable habitat and/or connectivity, the site is not considered to be constrained by other protected/notable species such as reptiles or great crested newts.
- 6.5 A range of ecological enhancements have been recommended to provide a net gain in biodiversity post-development in line with local plan policies.

7.0 References

ARG (2010) *UK Advice Note 5: Great crested newt habitat suitability index*. Amphibian and Reptile Groups of the United Kingdom.

Bright, P., Morris, P. & Mitchell-Jones, T. (2006) *The Dormouse Conservation Handbook*. 2nd edition. English Nature.

BTO (2020) Breeding Bird Survey. Available at: <https://www.bto.org/our-science/projects/bbs>

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

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

Creswell, P., Harris, S. & Jeffries, D.J. (1990) *The history, distribution status and habitat requirements of the badger in Britain*. Nature Conservancy Council, Peterborough.

English Nature (2004) *Reptiles: guidelines for developers*. English Nature, Peterborough.

Institution of Lighting Professionals (ILP - 2018) *Guidance Note 08/18 – Bats and artificial lighting in the UK*. ILP, Rugby.

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

Natural England (2011) *Badgers and Development: A guide to best practice and licensing*. Natural England, Bristol.

Neal, E. & Cheeseman, C. (1996) *Badgers*. T & A D Poyser Ltd. London.

Strachan, R. & Moorhouse, T. (2006) *Water vole conservation handbook*. Wildlife Conservation Research Unit, University of Oxford.

UK Habitat Classification Working Group (2018) *UK Habitat Classification User Manual*. Available at:
<http://ecountability.co.uk/ukhabworkinggroup-ukhab>

Wilson, G.J., Harris, S. & McLaren, G. (1997) *Changes in British badger population, 1988-1997*. People's Trust for Endangered Species, London.

Internet resources:

Arun District Council: www.arun.gov.uk

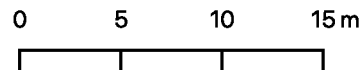
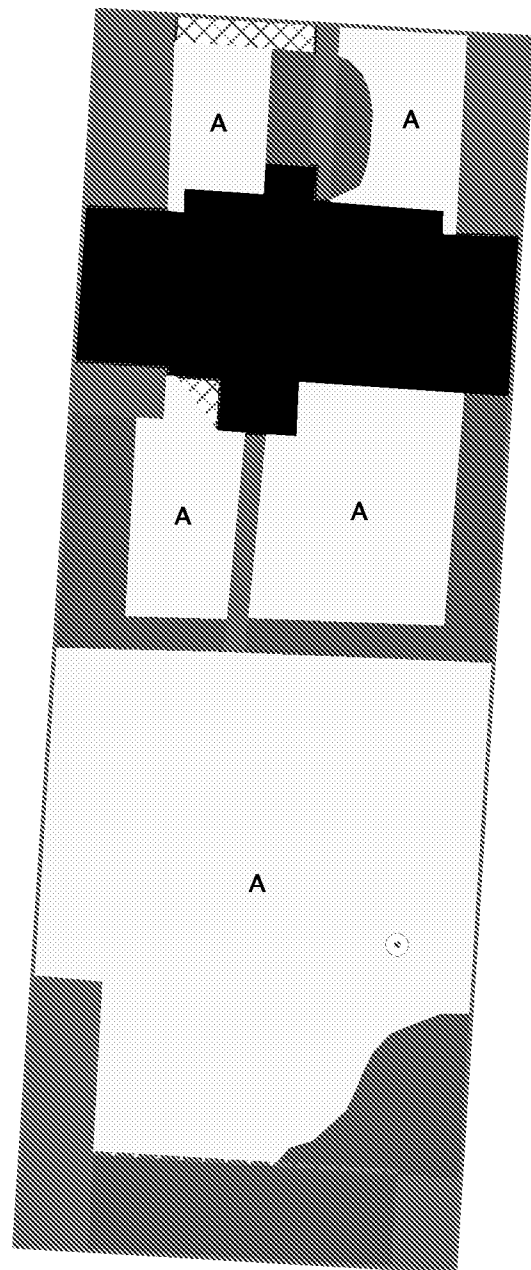
Emorsgate Seeds: www.wildseed.co.uk

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

Hedgehog Highways: www.hedgehogstreet.org/help-hedgehogs/link-your-garden/

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Phase 1 Habitat Map



Appendix 1: Habitat Map (Illustrative only)

- Site boundary
- Building
- Bare earth
- A Amenity grassland
- Hardstanding
- Introduced shrub
- Brick wall
- Target note: Mammal holes

Site: 6 Manor Road, Rustington
Client: Rodway Planning
Survey date: 30th January 2020
Surveyors: N. Kay, K. McGranaghan

the
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Appendix 2: Photos

Photograph 1: Front of dwelling at 6 Manor Road.	 A black and white photograph showing the front of a two-story brick house. The house has a dark roof, a chimney on the left, and a large white-framed bay window on the right. Several other windows are visible along the front facade.
Photograph 2: Western garage on side of dwelling to be removed to create new access.	 A black and white photograph showing the side of the house. A white-framed window is on the left. To the right is a small white door leading to a detached garage. The garage has a flat roof and a single door.
Photograph 3: The front garden with areas of grass, hardstanding and bare earth.	 A black and white photograph of the front garden. It shows a mix of grass, a paved area (hardstanding), and some bare earth. A low stone wall or path is visible on the left side.

Photograph 4:

Rear of main dwelling and view of eastern garage.



Photograph 5:

Rear of main dwelling and western garage.



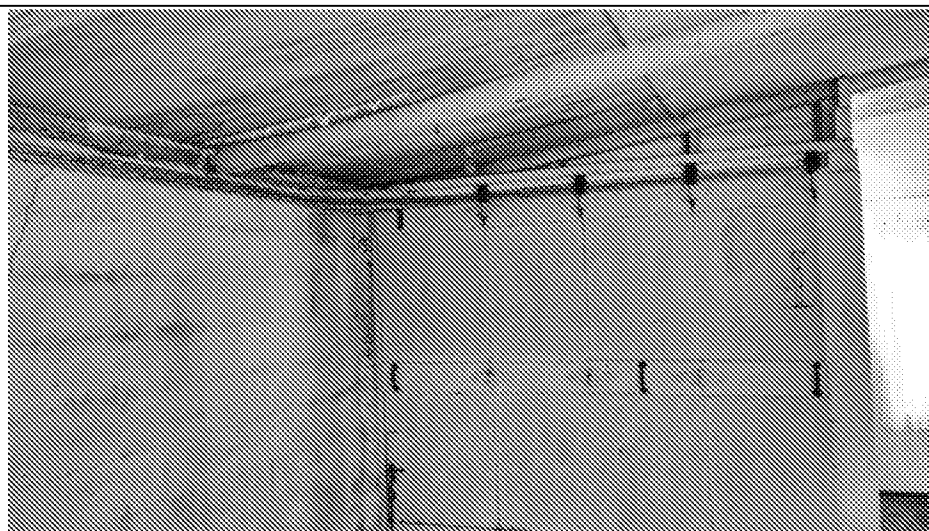
Photograph 6:

Inside the western garage – light from window and no crevice suitable for roosting bats.



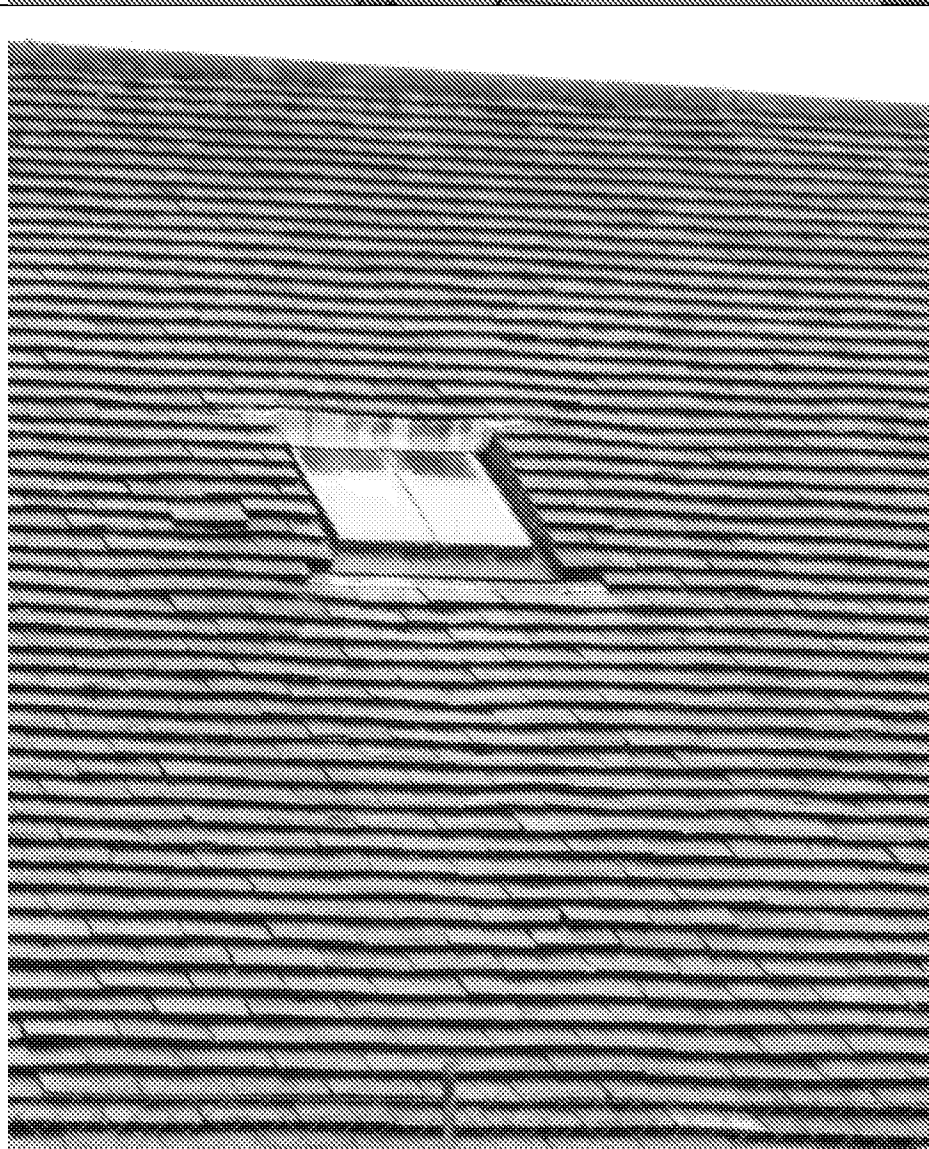
Photograph 7:

Inside western garage – well sealed.



Photograph 8:

Gaps under roof tiles on southern aspect of roof of main house.



Photograph 9:

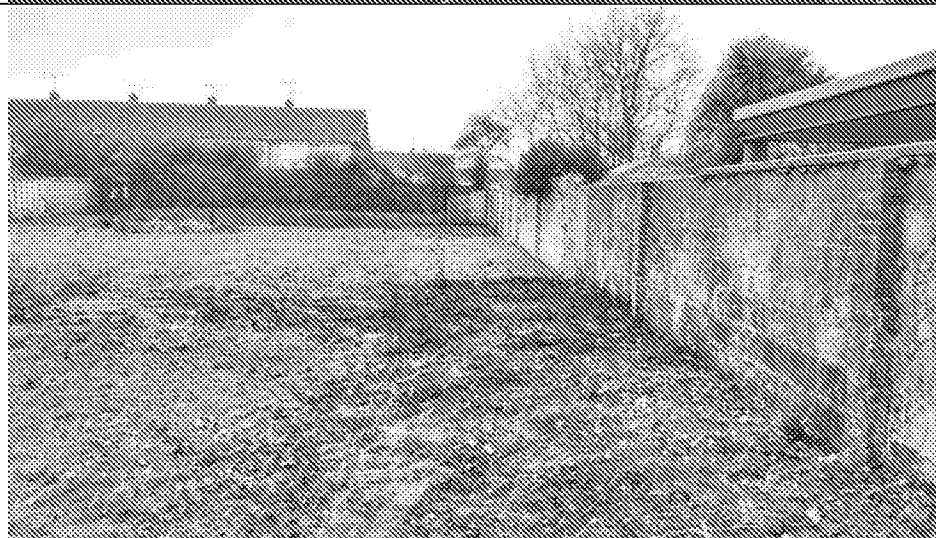
Brick storage area to the south of the garage – no roosting bat potential.

**Photograph 10:**

Rear garden dominated by amenity grassland and bare earth patches.

**Photograph 11:**

Rear garden looking south.



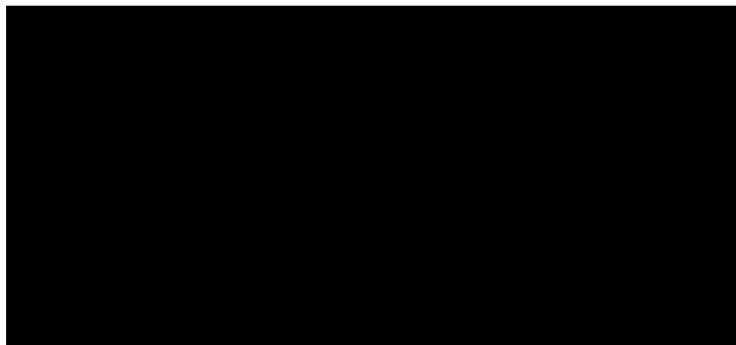
Photograph 12: Rear garden dominated by short amenity grassland.	 A black and white photograph showing a large, open rear garden. The foreground is covered in short, uneven grass. In the background, there is a wooden fence and a row of residential houses with gabled roofs under a clear sky.
Photograph 13: Rear garden as seen from southern boundary.	 A black and white photograph taken from the southern boundary of the rear garden. It shows a grassy area with a brick wall in the immediate foreground. In the background, a white fence runs along the garden's edge, with houses visible beyond it.
Photograph 14: Rear garden looking towards eastern boundary.	 A black and white photograph looking towards the eastern boundary of the rear garden. A brick wall is in the foreground, and a wooden fence runs across the middle ground. Houses are visible in the background behind the fence.

Photograph

15: One of a handful of small mammal holes found in rear garden.



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Date: 3rd February 2020