

# HAFOD HOUSING ASSOCIATION

## COWBRIDGE SCHOOL, ABERTHIN ROAD, VALE OF GLAMORGAN

### EXTENDED PHASE 1 AND BAT SURVEY REPORT

DECEMBER 2018



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EXTENDED PHASE 1 AND BAT SURVEY REPORT

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Issue	Revision	Stage	Date	Prepared by	Approved by	Signed
1	-	Draft for Review	6 November 2018	Dr Danielle Fry (Senior Ecologist)	Dr Matthew Watts (Director)	
2	Bat mitigation drawing updated; previous site report (2017) appended	For Submission	14 December 2018		Dr Matthew Watts (Director)	

## CONTENTS

### Summary

#### 1.0 Introduction

#### 2.0 Methodology

Desk study

Extended Phase 1 Habitat Survey

Bat Survey – Daytime inspection

Bat Survey – Activity Survey

Survey constraints

#### 3.0 Results

Desk study

Extended Phase 1 Habitat Survey

Fauna

#### 4.0 Policies and Plans

#### 5.0 Conclusions and Recommendations

### References

- Appendix I Existing Site Plan & Proposed Layout**
- Appendix II Site Survey Report (DCE, 2017)**
- Appendix III Phase 1 Habitat Map**
- Appendix IV Bat Survey – Building Inspection Results**
- Appendix V Bat Survey – Activity Survey**
- Appendix VI Proposed Bat House**
- Appendix VII Reptile Receptor Sites**

## SUMMARY

Soltys Brewster Ecology were commissioned by LRM Planning on behalf of Hafod Housing Association to undertake an ecological appraisal of an old school building and surrounding parcel of land. The site has been proposed for residential development (up to 48no. Units) and would result in the demolition of the existing buildings and the loss of the majority of surrounding habitat. In order to inform a planning submission, desk study and Extended Phase 1 Habitat Survey was initially undertaken in August 2018.

The combination of desk study and field surveys undertaken at the site identified a limited range of habitat types dominated by scrub vegetation, the school buildings and bare ground. There is also a limited amount of species poor semi-improved grassland and some mature trees. The grassland and scrub habitat were generally considered of some ecological value in a local context and the scrub habitat in particular is likely to function as a shelter, foraging and commuting resource for a variety of mammal, bird and invertebrate species. The majority of mature trees will be retained as part of the proposal.

The site supports a good population of slow worm and a low population of grass snake as determined by survey work completed by others<sup>1</sup> in 2017. A detailed Reptile Mitigation Strategy will need to be developed in consultation with the LPA prior to site clearance/construction although the principles of the mitigation have already been discussed and are set out in the current report.

The Main School Building was identified as a bat roost during the current survey. The available evidence suggesting day roosting by small numbers of Common Pipistrelle, Soprano Pipistrelle *Pipistrellus pipistrellus/P. pygmaeus*, *Myotis*, Lesser horseshoe *Rhinolophus hipposideros* and Brown-long-eared *Plecotus auritus* bats. Demolition of this building would therefore require a licence from NRW. Such licences can only be applied for following receipt of planning approval and the licence application is supported by a Method Statement setting out the timing of works and mitigation measures to ensure bats are not adversely affected.

Further survey is recommended to gain more information in relation to the potential for bats to hibernate in the Main School Building to inform the mitigation strategy and licence application. The principles of the mitigation strategy, including provision of a purpose-built replacement roost are described in the current report.

Other considerations for development would include avoidance of the bird nesting season for vegetation clearance and measures to prevent further nesting on the Main School Building.

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<sup>1</sup> David Clements Ecology  
Hafod Housing Association  
Cowbridge School, Aberthin Road  
Extended Phase 1 & Bat Survey Report  
E1884501/Doc 01

## 1.0. INTRODUCTION

- 1.1 Soltys Brewster Ecology were commissioned by LRM Planning on behalf of Hafod Housing Association to undertake an ecological appraisal of an old school building and surrounding parcel of land. The site has been proposed for small-scale residential development (47no. Units) and would result in the demolition of the existing buildings and the loss of the majority of surrounding habitat.
- 1.2 The site is located at the north-eastern outskirts of the town of Cowbridge (Grid Reference: ST 00046 74591) and lies directly to the south-west of the A48 and to the north-east of the A422 Aberthin Road (see existing & proposed layout plan in Appendix I). A small watercourse defines the north-western boundary with residential properties beyond, the A422 runs along the south-eastern boundary with some broadleaved woodland and agricultural fields beyond. More residential properties lie to the south and to the north lie the new comprehensive school grounds, a small area of rough grassland more agricultural fields beyond.
- 1.3 This report describes the findings of a desk study and Extended Phase 1 Habitat Survey undertaken in August 2018, with targeted bat survey work (emergence survey & automated monitoring) also undertaken. Previous surveys undertaken by David Clements Ecology Ltd. (DCE) in 2017 included bat and reptiles surveys (a copy of this report is included as Appendix II). The current report builds on the DCE findings with up to date bat surveys and a preliminary method statement for reptiles to inform a planning application.

## 2.0 METHODOLOGY

- 2.1. In order to establish the baseline ecological conditions on site and immediately adjoining habitats a combination of desk-based consultation and ecological site survey were undertaken in August 2018. Specific surveys for bats were then also subsequently undertaken in August & September.

### Desk study

- 2.2. This element of the work primarily involved consultation with the South East Wales Biodiversity Record Centre (SEWBReC) to identify any records of rare, protected or notable flora and fauna within the proposed development site boundary and surrounding 1 km area. The search criteria also included information relating to the location and citation details (where available) for any sites designated for their nature conservation interest such as Sites of Special Scientific Interest (SSSIs) or locally designated Sites of Importance for Nature Conservation (SINC).

- 2.3. A previous ecological report written by DCE (2017) was also used to inform the survey work and this report. Discussion with the Local Authority Ecologist also provided some additional information.

### Extended Phase 1 Survey

- 2.4 The fieldwork was undertaken on 15<sup>th</sup> August 2018 by a suitably experienced ecologist<sup>2</sup> and followed standard Phase 1 Habitat Survey protocol (JNCC, 1990) as amended by the Institute of Environmental Assessment (1995). All habitats within the site were classified and mapped as accurately as possible. Habitats considered to have potential to support rare, protected or otherwise notable species of flora and fauna were noted, as were any direct signs of these species (e.g. Eurasian Badger *Meles meles* setts and dung-pits). Incidental observations of birds on or flying over the site were also recorded along with any evidence of invasive, non-native plant species (such as Japanese Knotweed *Fallopia japonica* or Himalayan Balsam *Impatiens glandulifera*).
- 2.5 A map of habitats was drawn up and target notes were used to identify features of ecological interest (Appendix III). Where possible, habitats were cross-referenced to any relevant priority habitats listed under Section 7 of the Environment (Wales) Act 2016.

### Bat Survey – Daytime inspection

- 2.6 An external inspection was undertaken of both buildings on the 15<sup>th</sup> August 2018 and then a subsequent visit was undertaken to inspect the interior of the Main School Building on the 1<sup>st</sup> October 2018. The surveyors searched for roost evidence (droppings, staining, scratch marks, etc.) as described above and an assessment of the buildings potential to support nesting birds was also undertaken (findings shown in Appendix IV). The scope of the bat inspection survey, including timing and survey effort was based on guidelines published by the Bat Conservation Trust (2016) and aimed to establish the potential of the structures to support roosting bats based on the following descriptions:

- **Known or confirmed roost**
- **High** - A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
- **Moderate** – A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.

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<sup>2</sup> BSc Zoology, PhD, NRW bat licence no: SO85043/1

- **Low** - A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.
- **Negligible** – Negligible habitat features on site likely to be used by roosting bats.

### **Bat Survey – Activity Survey**

- 2.7 A single dusk emergence survey was undertaken on 15<sup>th</sup> August 2018. Four surveyors were positioned around the main building and a single surveyor was located inside as illustrated in Appendix V.
- 2.8 The survey commenced 15 minutes prior to sunset and extended for 90-120 minutes after sunset. Weather conditions were suitable and although there was a light shower at the start of the survey period it was brief, lasting no more than 10 minutes. The shower was not thought to be a particular constraint and recorded air temperatures were 19°C at the start and dropped to 17 °C by the end of the survey period.
- 2.9 Broadband ultrasonic detectors (Peterson D240x and Bat Box Duet) and appropriate recording equipment were used to allow both in field and office based sonogram analysis of bat calls.
- 2.10 Automated bat detectors (Anabat Express units) were deployed at 2no. locations within the Main School Building (refer to Appendix V for locations). The automated detectors were left in situ for five consecutive nights from 26<sup>th</sup> September to 1<sup>st</sup> October 2018.

### **Survey constraints**

- 2.11 At the time of the initial site visit the scrub on site was so extensive as to make some areas of the site inaccessible. It was not possible to view the ditch at the rear of the site. The broad-leaved trees that line the ditch were not assessed for their potential to support roosting bats as it was not possible to get close enough to enable a thorough assessment.
- 2.12 The demountable building was not accessible and no internal inspection was carried out of this building. The main building is in very poor repair and not all loft spaces were safe to enter during the inspection.

## 3.0 RESULTS

### Desk Study

- 3.1 The former school site is not covered by any form of nature conservation designation and is not located in close proximity to any such site so as to be of ecological relevance. The closest designated site lies approximately 700m to the north of the proposed development - Cors Aberthin SSSI designated primarily for marshy grassland. There are no obvious ecological links between this site and the proposed development site and it is considered that the proposal will have no effect on this designated site.
- 3.2 No SEWBRc records of protected or notable species were directly associated with the site although the immediate surrounding area included a variety of bird (e.g. House Sparrow *Passer domesticus*, Starling *Sturnus vulgaris*, Dunnock *Prunella modularis*), small mammal (e.g. Hedgehog *Erinaceus europeus*) and botanical (e.g. Bluebell *Hyacinthoides non-scripta*) records. All these species were considered of some ecological relevance to the site based on the habitat features present (i.e. trees and scrub). Relevant species specific records are discussed in more detail below.

### Extended Phase 1 Habitat Survey

- 3.3 The distribution and extent of habitats within the site is illustrated in Appendix III. The site is primarily comprised of the large redundant school buildings. The Main School Building is a large complex stone built structure estimated to be of Victorian construction. It is one to two storeys and there is a small basement on the north-west side of the building. To the north of the main building is a Demountable Building. They are believed to have been unoccupied for approximately ten years. These buildings are set in a small plot which is dominated by scrub and hardstanding. There is a small area of broad-leaved trees in the northern corner of the site. A small ditch is present at the north-western boundary of the site.

#### Hardstanding

- 3.4 In addition to the access paths around the building there are two main areas of hardstanding, in the north (Plate 1) and west of the site. These areas have been encroached by scrub consisting predominantly of Buddleia (*Buddleja davidii*) and Bramble (*Rubus fruticosus*) but Travellers joy (*Clematis vitalba*), Ivy (*hedera helix*), Fleabane (*Pulicaria dysenterica*) and grasses such as Creeping bent (*Agrostis stolonifera*) are also present.



**Plate 1 Northern end of the site where it meets the A48 flyover. Buddleia and bramble scrub encroaching on the hardstanding.**



#### *Scrub*

3.5 As described above the scrub consist mainly of Buddleia and a few other introduced garden plants that would have been planted on the site (e.g. *Viburnum sp.*) together with native species of Bramble, Travellers joy and Ivy. In places, such as across the hardstanding areas described above it is scattered but elsewhere it has become very dense and continuous and has made access across the site difficult (Plate 2). The density of the scrub also meant that the ditch was not visible to assess during the survey (Plate 3).

**Plate 2 Continuous scrub**



**Plate 3 Area where ditch was thought to be located**



#### *Semi-improved grassland – species poor*

- 3.6 There are some small patches of grassland amongst the scrub indicative of the lack of management over the last few years False oat grass (*Arrhenatherum elatius*) and Cock's foot (*Dactylis glomerata*) with the occasional ant hill present.

#### *Trees*

- 3.7 There are some mature trees around the periphery of the site and some small self-seeded Ash (*Fraxinus excelsior*) saplings across the site. The mature trees include some Lime (*Tilia europaea*) specimens in the northern corner of the site (Plate 4) interspersed with a Holly (*Ilex sp.*), Hawthorn (*Crataegus monogyna*) and Ash. There is a mature Yew (*Taxus baccata*) and two Cypress trees at the southern end of the site. Full descriptions of all the trees on site are available in the tree report produced by Treescene (2018).

#### *Buildings*

- 3.8 The buildings were previously surveyed by DCE (2017) and the structures have not changed considerably since that survey was undertaken. Please refer to the DCE (2017) report (Appendix II) for a full description of the buildings. Summaries are given below in the bat section.

**Plate 4 – Lime tree at the northern most corner of the site****Fauna**

3.9 In the course of the extended Phase 1 Habitat Survey, a search of field signs for protected or notable species was undertaken and the potential of the habitats to support these species considered. In the context of this report notable species were those considered to meet any of the following criteria:

- Species protected by British or international law;
- Species listed under Section 7 of the Environment (Wales) Act or local Biodiversity Action Plan species;
- Nationally rare or nationally scarce species;
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists).

**Birds**

3.10 The surveyed area was considered likely to support a number of scrub/woodland species typically associated with urban edge areas. Several such species including Great Tit *Parus major*, Dunnock *Prunella modularis*, and Blackbird *Turdus merula* were noted during the survey on 15<sup>th</sup> August. In 2017 (DCE) a nest was observed in a sapling to the south of the demountable building.

3.11 A jackdaw was recorded nesting in a chimney in 2017 and during the current survey, lots of nesting material was noted internally appearing out of the flue into the fireplaces themselves. This indicated that the chimneys have been used consistently for nesting for a number of years.

- 3.12 The species present at the time of the survey are not representative of the full spectrum of species that the site could potentially support (e.g. during spring/autumn passage) but the assemblage recorded was considered largely representative of that likely to breed on and in the vicinity of site. This assemblage was dominated by common and widespread species although Dunnock appears on the Amber List of Birds of Conservation Concern in the UK (Hayhow et al., 2017) although is a Green List species in Wales (Johnstone et al., 2012). Dunnock is also listed under Section 7 of the Environment Act (Wales) as a Priority Species.

#### Badger

- 3.13 No evidence of use of the site by Badger was found during the current survey and no further consideration of this species would be considered necessary as part of the current assessment.

#### Bats

- 3.14 The desk study records provided by SEWBReC identified that foraging bats had been recorded approximately 380m from the site. Species identified included Serotine *Eptesicus serotinus*, Daubenton's *Myotis daubentonii*, Noctule *Nyctalus noctula*, Common pipistrelle *Pipistrellus pipistrellus* and Brown long-eared *Plecotus auritus*. A roost of an unknown species was recorded within a house approximately 500m from the site and there are a further seven recorded roosts within the 2km radius around the site, five of these are Lesser horseshoe *Rhinolophus hipposideros* roosts. The site does not fall within 10km of any statutory sites which are designated primarily for the conservation of bats.
- 3.15 In 2017 DCE carried out bat surveys of the site and details of the survey can be found in their report (see Appendix II). The survey identified use of the Main School Building by a small number of Lesser horseshoe and Common pipistrelle bats. The survey findings were considered to represent a summer-time day roost (DCE 2017).
- 3.16 Discussion with the Vale of Glamorgan Ecologist also confirmed that there is a Lesser horseshoe hibernation roost under the A48 fly over immediately adjacent to the site (personal communication). However, whilst it is possible that bats from the school buildings would utilise the fly-over for hibernation, the physical separation of the viaduct from the application site (e.g. see Plate 1) and the absence of new build in the northern part of the site is such that the fly-over was not considered of particular ecological relevance to the application.

### *Building inspection*

3.17 The demountable (Plate 5) is a simple L-shaped building with a flat bitumen-felt roof which is folded at the edges. The building stands on a brick base, is clad with painted wooden boards and has painted wooden soffits. The windows are boarded up although there are gaps above the boards at the tops of the windows, the glass of which has been smashed. Stone steps lead up to the door which is also boarded. Climbing vegetation covers corners of the building. There are visible gaps in the boarding at the eaves and under the roofing felt, gaps above and below the boards which have become warped.

### **Plate 5 - The Demountable Building, mature lime trees beyond**



3.18 The Main Building is complex with several pitched parapet roofs which are slate tiled with ridge vents present. There are also several chimneys and covered roof vents situated centrally on the ridges. The rear of the building has an adjoined building which has a flat membranous roof. The southern part of the building has a second storey. There are numerous features that provide access for bats to the interior such as slipped and broken tiles, lifted flashing around vents and roof ridges, missing mortar and broken vents etc. The windows are mostly covered with metal mesh however some of the covered windows have previously been smashed and the mesh has lifted in some places. There are louvered vents above arched windows which are covered with mesh but again it is lifted in places offering access for bats. There are ceramic vents below internal floor level present at the rear of the building where bats maybe able to access the foundations of the structure.

3.19 Internally the building offers a range of loft spaces of various size, shape and levels of disrepair (e.g. Plate 6). Whilst lots of the roof structures show daylight either through lots of small gaps from slipped tiles, there are large holes in some. There are however some darker spaces offering suitable roosting opportunities. They all appeared to be simple timber framed with the roof slates directly on top with no insulation.

**Plate 6 – Accessible loft space**



3.20 DCE (2017) identified Lesser horseshoe droppings during the internal inspection. These were still present during the current inspection with several hundred observed in the cupboard with access to a loft space and the adjoining cupboard with shelves present (Plate 7). Droppings consistent with Brown Long-eared bat were also observed on the first floor (Appendix IV). A single Lesser horseshoe bat was seen during the internal building inspection. See Appendix IV for location.

3.21 The basement room offers hibernation potential. From this room bats would be able to access the void under the floor of the ground floor. There are access panels missing in several of the rooms and holes that have been made in the floor through vandalism and other surveys that could allow bats into this void which appears to range from 0.5 – 1 metre deep in the visible places. Vents were noted on the external building inspection which could also provide access to this underground void.

## Plate 7 – Identified bat droppings



### Activity and Automated Surveys

3.22 The dusk activity survey identified small numbers of both Common Pipistrelle and Myotis bats exiting the Main School Building (see Appendix IV for locations). This is consistent with the activity surveys undertaken by DCE (2017). The surveyor located inside the building observed at least two individual Lesser horseshoe bats and a single Brown long-eared bat within the building. They appeared early indicating they are roosting in the building during the day. They were observed flying all around the internal space including down to the ground floor.

3.23 The automated surveys returned brief passes of Lesser Horseshoe on three of the five nights in the furthest room on the ground floor (detector A). The other detector (detector B) also recorded Lesser Horseshoe consistently (4/5 nights). In addition, the detector at this location also recorded passes by Brown Long-eared bat, Common and Soprano pipistrelle and Noctule bat. Noctule bats have very loud calls and it is possible that the detector was picking up Noctule calls from outside the building.

### Reptiles

3.25 The SEWBReC search returned records of slow worm, common lizard and grass snake within 1km of the site. The nearest record was for slow worm at 50m to the south-west.



3.26 In 2017 DCE carried out a reptile survey of the site and details of the survey can be found in their report (DCE 2017). The survey identified a good population (max. count of 5 individual adults) as defined by Froglife, (1999) and a low population of Grass snake (max. count of 2 individual adults).

### **National Planning Policy**

- 4.1. In terms of planning policy, a number of over-arching policies are of relevance not least of which are those described within Planning Policy Wales (PPW, 2018), which sets out land use planning policies of the Welsh Assembly Government with Chapter 6 dealing with Distinctive and Natural Places, including Biodiversity and Ecological Networks. The advice contained within PPW is supplemented for some subjects by Technical Advice Notes (TAN's), with TAN 5 addressing Nature Conservation.
- 4.2. TAN 5 identifies a number of key principles, which the Town and Country Planning system in Wales should incorporate those relevant are detailed below:
- integrate nature conservation into all planning decisions looking for development to deliver social, economic and environmental objectives together over time;
  - ensure that the UK's international obligations for site, species and habitat protection are fully met in all planning decisions;
  - look for development to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.

### **Environment (Wales) Act, 2016**

4.3. Part 1 of the Environment Act Wales' came into force in May 2016 and sets out the approach to planning and managing natural resources at a national and local level with a general purpose linked to statutory 'principles of sustainable management of natural resources' defined within the Act.

#### *Section 6 - Biodiversity and resilience of ecosystems duty*

4.4. Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'.

### **Local Policy Context – Vale of Glamorgan Local Development Plan**

4.5 The Local Development Plan (LDP) was formally adopted on 28th June 2017 and will be used for decision-making during the Plan period (2011-2026) to 'ensure the most efficient use of land and other limited resources, whilst at the same time promoting the regeneration and stimulation of the local economy for the

benefit of the present and future population’. Policies within the LDP relating to biodiversity which are considered of relevance to the proposed development at Aberthin Road include:

**Policy MD 9 - Promoting Biodiversity**

*New development proposals will be required to conserve and where appropriate enhance biodiversity interests unless it can be demonstrated that:*

- 1. The need for the development clearly outweighs the biodiversity value of the site; and*
- 2. The impacts of the development can be satisfactorily mitigated and acceptably managed through appropriate future management regimes.*

**Policy MG20 – Nationally Protected Sites and Species**

*‘...Development proposals likely to affect protected species will only be permitted where it is demonstrated that:*

- 1. The population range and distribution of the species will not be adversely impacted;*
- 2. There is no suitable alternative to the proposed development;*
- 3. The benefits of the development clearly outweigh the adverse impacts on the protected species; and*
- 4. Appropriate avoidance, mitigation and compensation measures are provided...’*

**Supplementary Planning Guidance Biodiversity & Development (2018)**

4.6 The SPG provides further detail and guidance on the implementation of LDP policy in order to assist those involved in the development process in meeting statutory and policy requirements in relation to development proposals that may adversely impact upon biodiversity within the Vale of Glamorgan. Specifically, the SPG aims to:

- Ensure that the key principles of national planning guidance on biodiversity and nature conservation are fully met at the local level and specifically that local planning decisions ensure that new developments maintain, enhance, restore or increase biodiversity in the Vale of Glamorgan;
- Ensure that best practice is followed in a consistent and open manner;
- Provide clarity to developers, statutory consultees, local residents and other stakeholders and interested parties involved with ecology / biodiversity and the planning and development process;
- Minimise delays and cost to developers by ensuring that nature conservation is incorporated into the planning process at the earliest 1 | Page stages so that impacts are predictable and only relevant development proposals are affected; and

- Ensure that any adverse impacts of developments undertaken today will not only protect biodiversity today, but will still be delivering environmental benefits in the future. Mitigation shall ensure that the developments are future-proof.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 The combination of desk study and field surveys undertaken at the site identified a limited range of habitat types dominated by scrub vegetation, the school buildings and bare ground. There is also a limited amount of species poor semi-improved grassland and some mature trees. The grassland and scrub habitat were generally considered of some ecological value in a local context and the scrub habitat in particular is likely to function as a shelter, foraging and commuting resource for a variety of mammal, bird and invertebrate species. The site has been shown to support a good population of slow worm and a low population of grass snake. The majority of mature trees will be retained as part of the proposal (Appendix I)

### *Bats*

- 5.2 The Main School Building was identified as a bat roost. The available evidence suggesting day roosting by small numbers of Common pipistrelles, Soprano pipistrelles, Myotis, Lesser horseshoe and Brown-long-eared bats. Demolition of this building would therefore require a licence from NRW. Such licences can only be applied for following receipt of planning approval and the licence application is supported by a Method Statement setting out the timing of works and mitigation measures to ensure bats are not adversely affected.
- 5.3 Due to the timing of the DCE survey (see Appendix II) and the additional survey work carried out and reported in the current report, it is considered that use of the site as a maternity roost for one or more of the bat species cannot be ruled out at this time. There is also potential for the site (basement in particular) to be used for hibernation purposes.
- 5.4 It is recommended that additional survey work is carried out over the winter period to determine if the building is used during this time of year<sup>3</sup>. Further information will help inform the method statement and proposed mitigation.
- 5.5 The following mitigation measures are considered appropriate to the demolition of the building and are based on a precautionary approach (i.e. a 'worst case' scenario that the building is used as a maternity roost and hibernation site by one or more species) and the current available information:

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<sup>3</sup> This work is underway as of w/c 03 December

- Provision of alternative roosting opportunities prior to and during demolition – purpose built “bat house” (Appendix VI). The bat house will include suitable features for use by the typical crevice dwellers (e.g. Pipistrelle, Myotis) identified at the site as well as internal space for the species that require internal flight space (Lesser Horseshoe & Brown long-eared). The bat house will be constructed prior to commencement of demolition under ecological supervision. This would ensure no net loss of roosting habitat locally in the short term;
- At the start of the works a tool box talk will be given to the contractors to make them aware of the potential presence of bats, what bats look like and what measures will be put in place to limit any impacts to bats;
- Start of demolition works to be programmed from spring (March/April) or autumn (October/November) so as to avoid the period of the year when bats are most susceptible to disturbance particularly avoiding the hibernation period. Any bats encountered will be moved to replacement roost (bat house) by a licensed ecologist;
- All fascia, soffits ridge tiles and slates on the building will be removed using hand-tools (e.g. crowbar) prior to demolition of the main fabric of the building;

### Birds

- 5.6 The trees and scrub are likely to support a number of nesting bird species during the breeding season, which is typically considered to extend from March – August inclusive. In order to avoid or minimise any potential conflict with nesting birds, vegetation clearance should be undertaken outside this period (i.e. undertaken between September and February). In the event that avoidance of the nesting season is not possible, a prior inspection by an ecologist would be required prior to any vegetation removal/building demolition to ensure that no active nests were present. If an active nest was found, it would be retained *in situ* along with an appropriate buffer until any young had fledged.
- 5.7 Jackdaws were observed to be nesting within the chimneys of the Main School Building. These should be capped during the winter (September to February) period to prevent new nesting prior to demolition.

### Reptiles

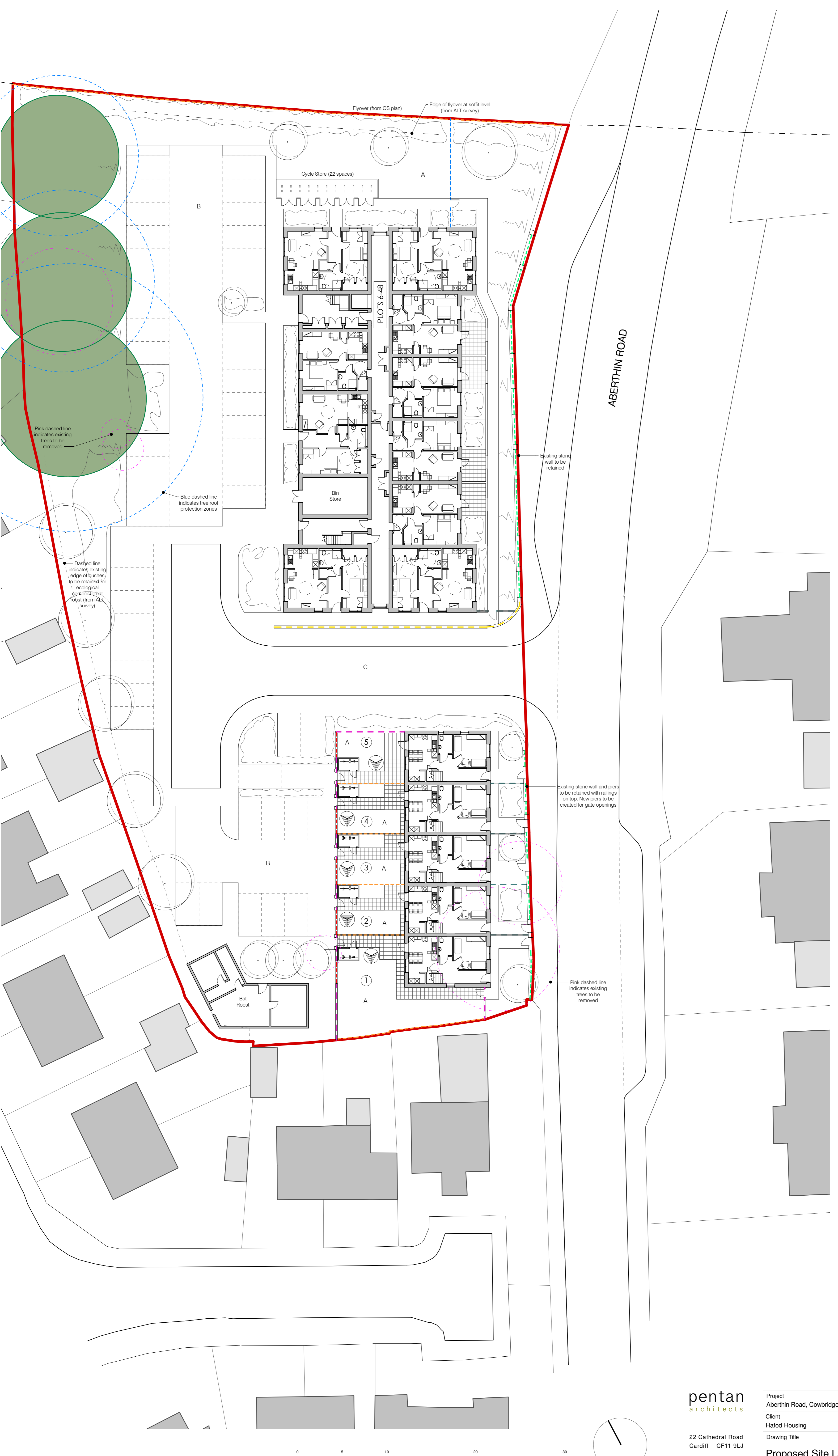
- 5.8 Mitigation for reptiles should concentrate primarily on minimising the potential for causing the death and injury of individuals during site clearance and building operations; this is a statutory requirement. The site is constrained by virtue of its size and location and in this instance it is considered that the site will need to be cleared of reptiles by means of a ‘fence trap and clear’ (translocation) operation.

- 5.9 A full method statement with respect to reptiles will be required and instruction has been received for this to be compiled. This will need to be prepared in consultation with the Local Planning Authority. Initial discussion with the LPA Ecologist has indicated that there is agreement with the general approach to translocate animals off-site and that council owned receptor sites such as Porthkerry Country Park and Cosmeston Lakes Country Park are available to receive relocated individuals (Appendix VII). There will be a cost attached to any individuals that are accommodated on these sites (Appendix VII). Alternative sites may be available closer to the proposed development or “donor” site. Aerials show areas of potentially suitable habitat in the vicinity of the donor site (Appendix VII) and these could be explored further during the development of the detailed method statement. For the purposes of informing the current submission, the ‘deliverability’ of the mitigation strategy has been demonstrated – i.e. receptor sites are available which could be utilised (subject to payment of the management fee set out in Appendix VII<sup>4</sup>).
- 5.10 Clearance operations for reptiles are seasonally constrained and cannot be carried out during the hibernation period which extends from November to February inclusive. Work outside of this period considerably reduces the probability of vulnerable torpid and/or immobile hibernating individuals being encountered and potentially harmed. In order to prepare the site the above ground clearance of vegetation was carried out at the end of September 2018 following the recommendations of the DCE (2017) report. Clearance was undertaken using hand tools to a height of 300mm above ground.

## REFERENCES

- Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. Bat Conservation Trust, London.
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**APPENDIX I EXISTING SITE PLAN & PROPOSED LAYOUT**



**Boundary Key**

	TYPE 01 - 1100mm high black powder coated steel railings
	TYPE 02 - 1800mm high timber close boarded fencing
	TYPE 03 - Proposed retaining wall in strict accordance with Structural Engineers specification
	TYPE 04 - 1800mm high black powder coated steel railings
	TYPE 05 - 1200mm high flush fitting black powder coated steel railings fixed atop low 600mm high wall
	TYPE 06 - 1100mm high black powder coated steel railings above existing stone boundary wall and between existing / new stone piers
	TYPE 07 - 1800mm high facing brick wall

**Landscape Key**

	A Grass / turfed areas
	B Permeable concrete block pavours
	C Fine grade tarmac
	450 x 450mm pre-cast concrete paving slabs
	Existing trees to be retained. Dashed line indicates root protection zone
	Existing trees to be removed
	New tree positions in accordance with Landscape Architect's design & specification
	New low level vegetation in accordance with Landscape Architect's design & specification
	2.6m x 4.8m parking space

**General Key**

	Plot number
	Timber garden shed (suitable for bike storage)
	3-arm rotary clothes line
	Site Boundary

**NOTES**

Site plan developed using detailed survey prepared by ALT Surveys ref: '156073A / 156074A' dated: 5th November 2018.

Plans are subject to imposed planning conditions and thorough drainage investigations. Position of all existing in use and redundant drainage runs to be confirmed following further investigation.

Position of any existing underground services to be confirmed following further investigation.

Refer to engineer's proposals for details of upgrading works to existing highways, proposed highways within new development and for proposed site levels and drainage details.

Refer to landscape architect's proposal for details of soft landscaping.

Ownership of all boundaries to be confirmed by client.

**SCHEDULE OF ACCOMMODATION**

5no. wheelchair accessible 1 bed apartments
12no. 2B3P apartments
26no. 1B2P apartments
<b>Total = 43 apartments</b>
5no. 3B6P houses
<b>Total = 48 units</b>

**pentan**  
architects

Project  
Aberthin Road, Cowbridge

Client  
Hafod Housing

Drawing Title  
Proposed Site Layout

Date  
Nov '18

Scale  
1 : 200 @ A1

Drawing No.  
3703 / PA / 010

Rev.  
A

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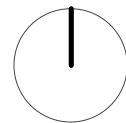
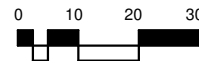
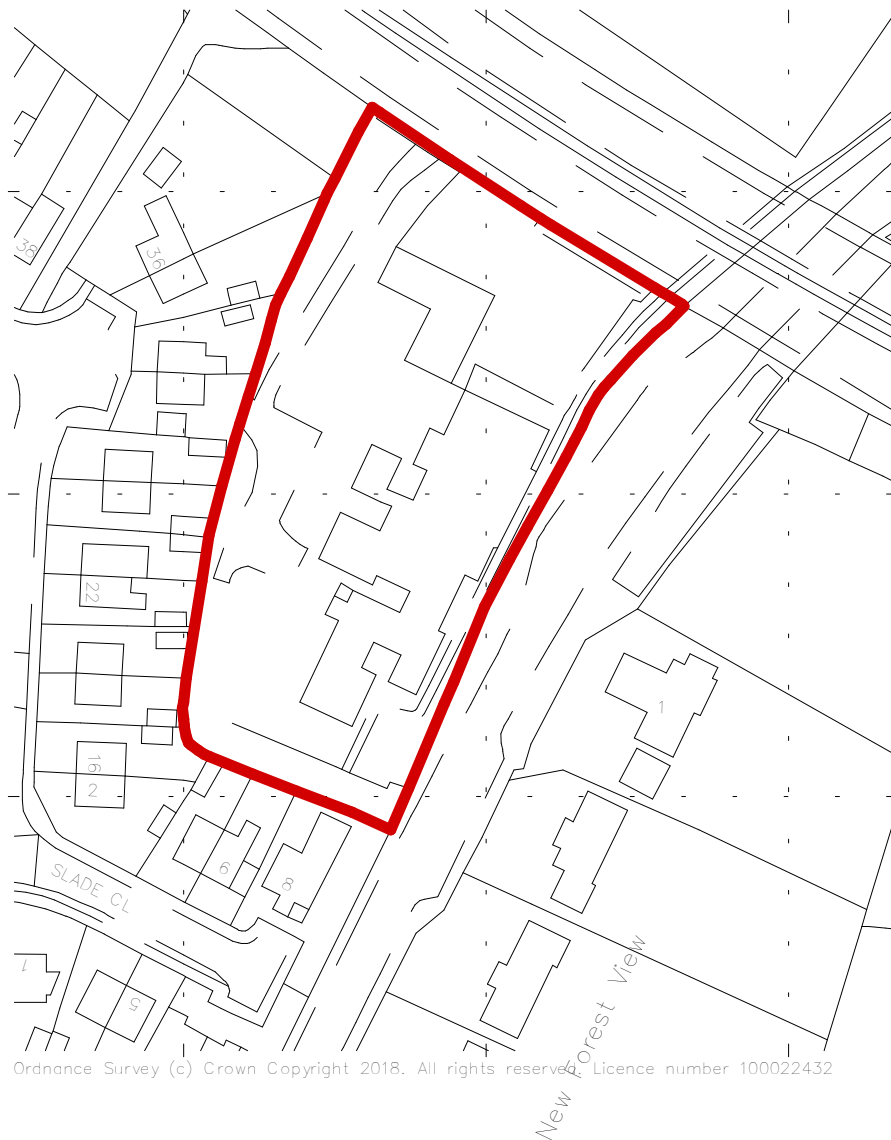
NOTES Do not scale. All dimensions are in millimetres unless stated otherwise



Revisions

A Scale bar added

14/12/2018



 Site Boundary

Site Area = 5170m<sup>2</sup>  
0.517ha

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Project  
Aberthin Road, Cowbridge

Client  
Hafod Housing

Drawing Title

**Site Location Plan**

Date  
Nov '18

Scale  
1 : 1250 @ A4

Drawing No.  
3703 / PA / 001

Rev.  
A

NOTES Do not scale. All dimensions are in millimetres unless stated otherwise

**APPENDIX II SITE SURVEY REPORT (DCE, 2017)**

## APPENDIX III PHASE 1 HABITAT MAP



- Trees
- X Scrub – scattered
- . Scrub – dense/continuous
- S1 Semi-improved grassland – species poor
- Hardstanding
- Buildings
- Development boundary

Preliminary	Planning	Design	Tender	Construction
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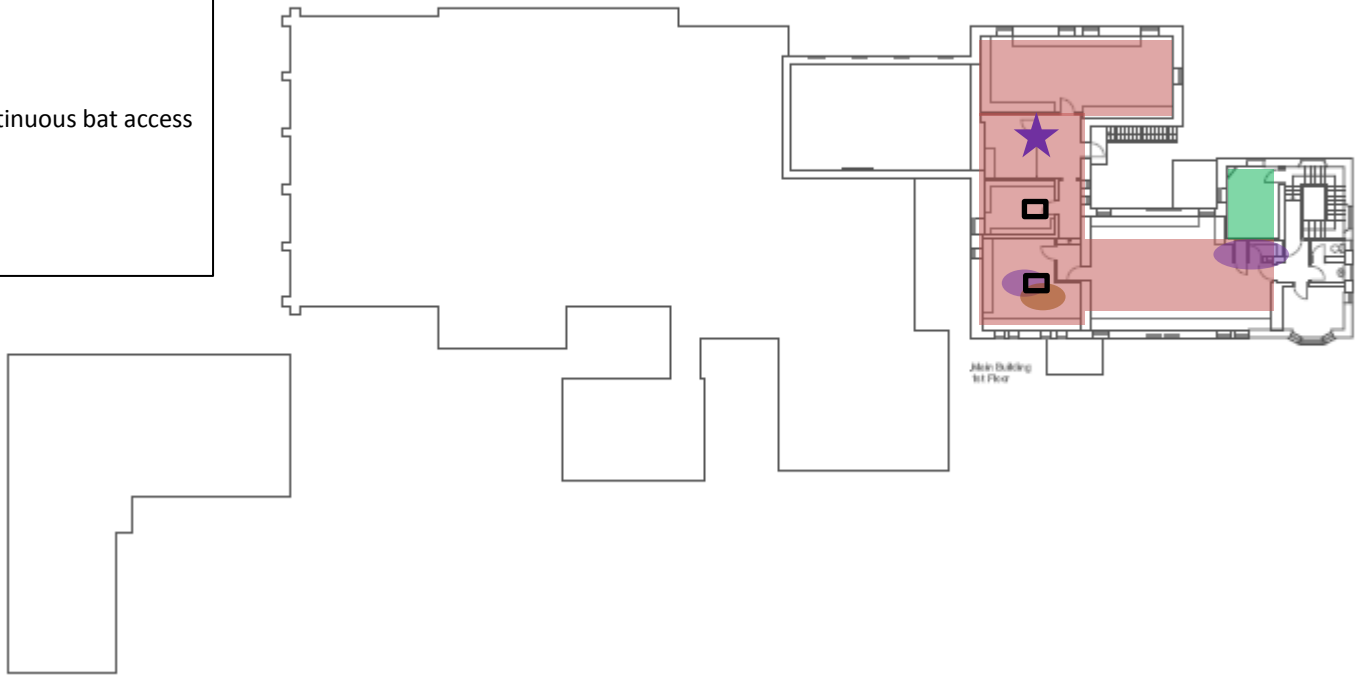
Client: Hafod Housing Association <b>Project: Cowbridge School</b>		Drawing Title: Phase 1 Habitat Map		<b>soltysbrewster</b>	
Project Code: E1884501		Initials: DF		Date 6/11/2018	
				4 Stangate House Stanwell Road Penarth Vale of Glamorgan CF64 2AA	
				Telephone:- +44(0) 29 2040 8476 E-mail:- <a href="mailto:enquiry@soltysbrewster.co.uk">enquiry@soltysbrewster.co.uk</a>	

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## APPENDIX IV BAT SURVEY – BUILDING INSPECTION RESULTS

**Key**

- ★ Bat seen
- LHS droppings
- BLE droppings
- Divided loft space but continuous bat access
- Isolated loft space
- Hatch where loft accessed






Preliminary	Planning	Design	Tender	Construction
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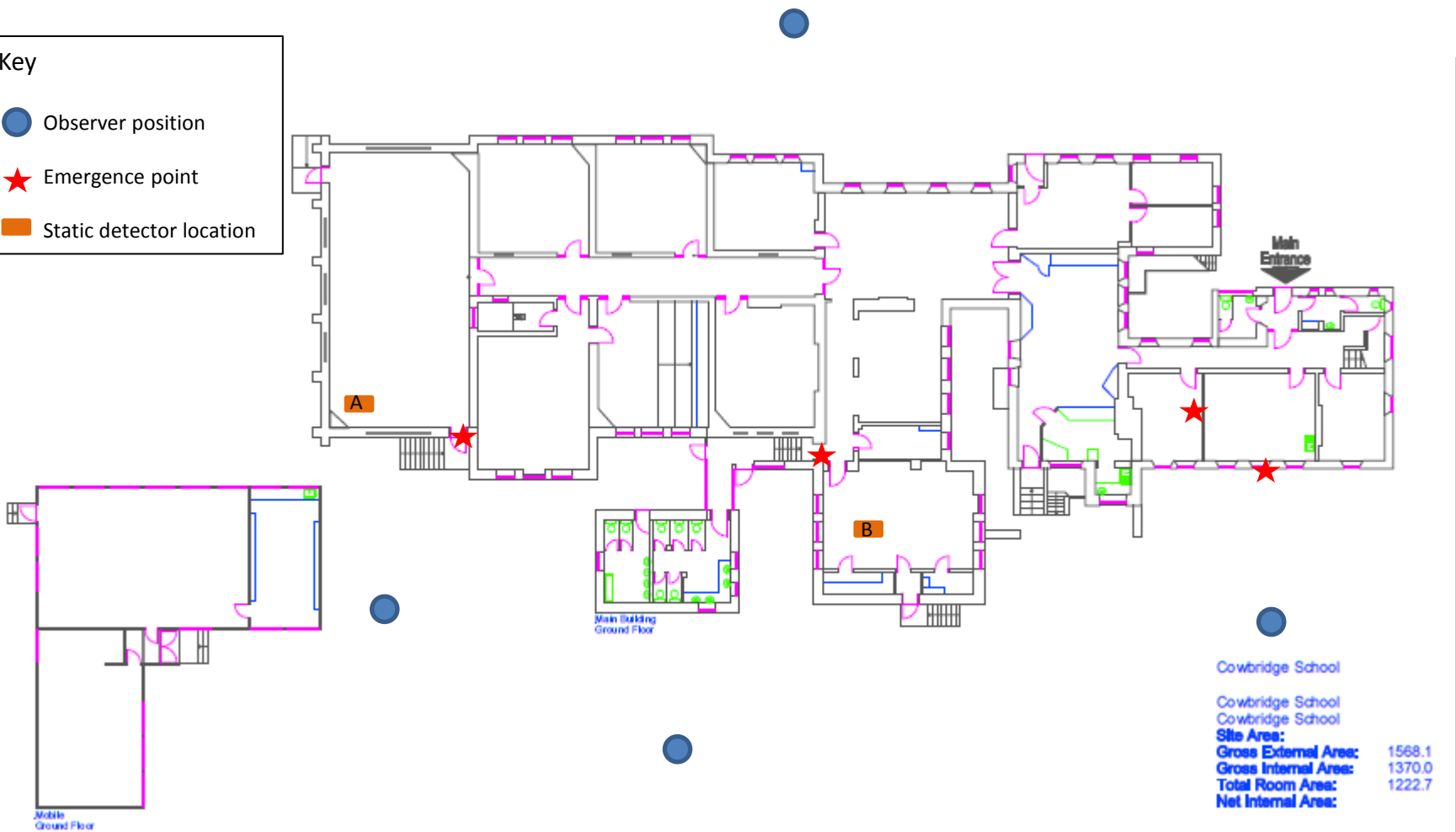
Client: Hafod Housing Association <b>Project: Cowbridge School</b>		Drawing Title: Bat Survey – Building Inspection			
Project Code: E1884501		Initials: DF			
Project Code: E1884501		Date: 6/11/2018		Telephone:- +44(0) 29 2040 8476 E-mail:- enquiry@soltysbrewster.co.uk	

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## APPENDIX V BAT SURVEY - ACTIVITY SURVEY


**Key**

-  Observer position
-  Emergence point
-  Static detector location



Cowbridge School  
 Cowbridge School  
 Cowbridge School  
**Site Area:**  
**Gross External Area:** 1568.1  
**Gross Internal Area:** 1370.0  
**Total Room Area:** 1222.7  
**Net Internal Area:**

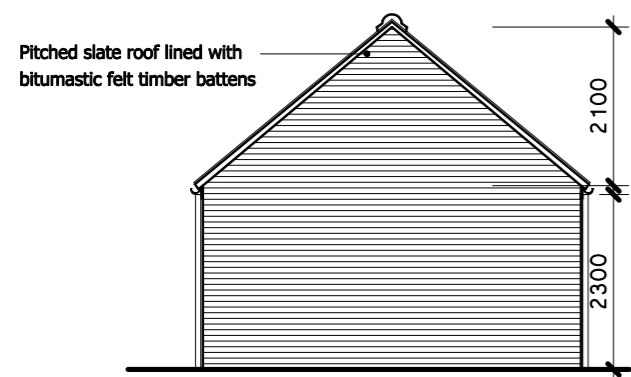
Preliminary	Planning	Design	Tender	Construction
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Client: Hafod Housing Association <b>Project: Cowbridge School</b>		Drawing Title: Bat Survey – Activity		 4 Stangate House Stanwell Road Penarth Vale of Glamorgan CF64 2AA	
Project Code: E1884501	Initials: DF	Date: 06/11/2018	Telephone:- +44(0) 29 2040 8476 E-mail:- enquiry@soltysbrewster.co.uk		

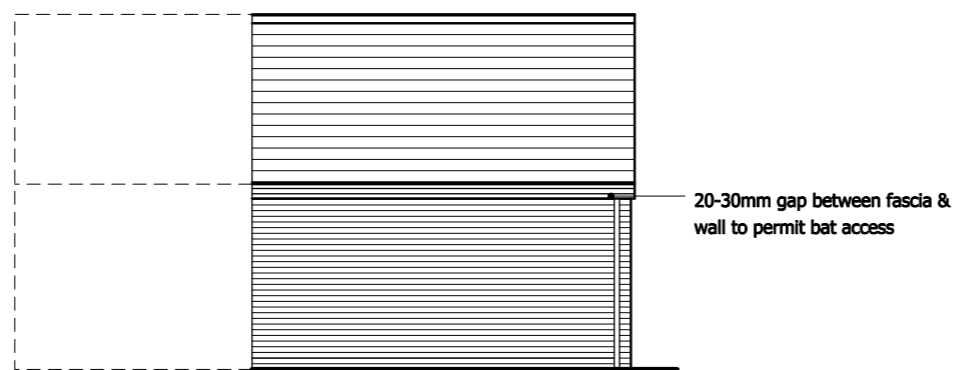
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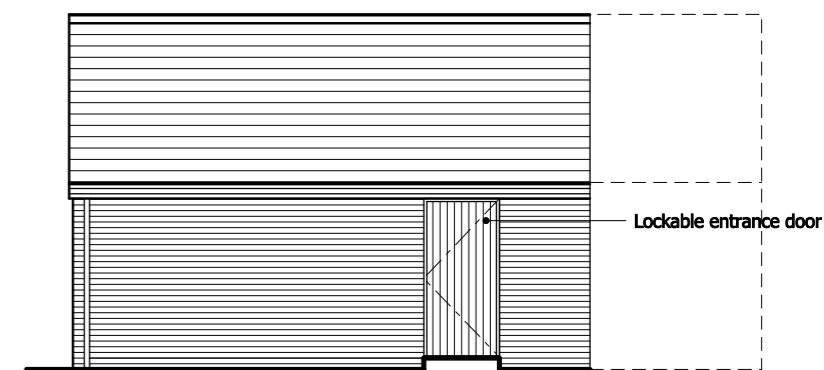
## APPENDIX VI PROPOSED BAT HOUSE



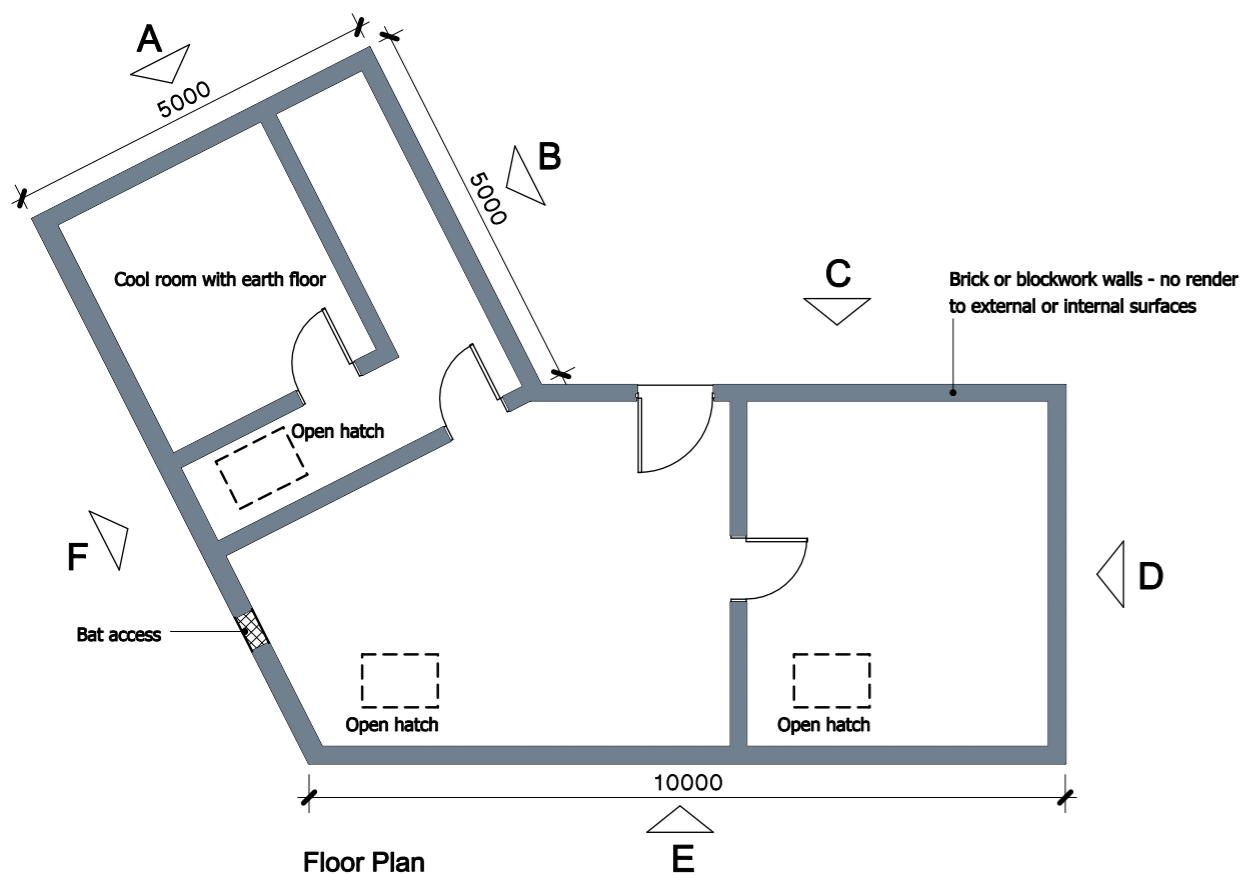
Elevation A



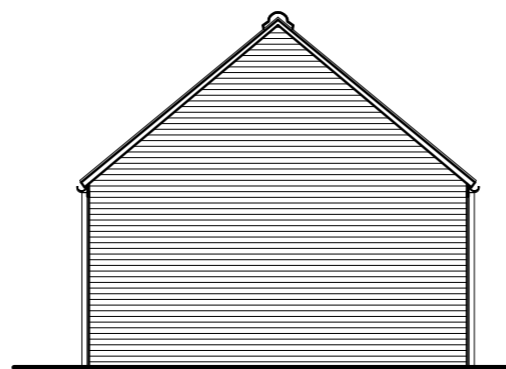
Elevation B



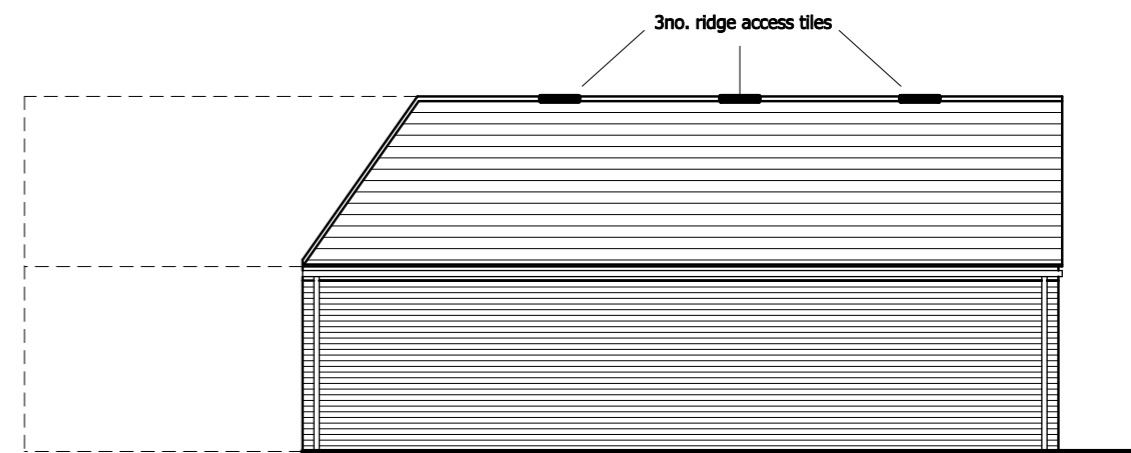
Elevation C



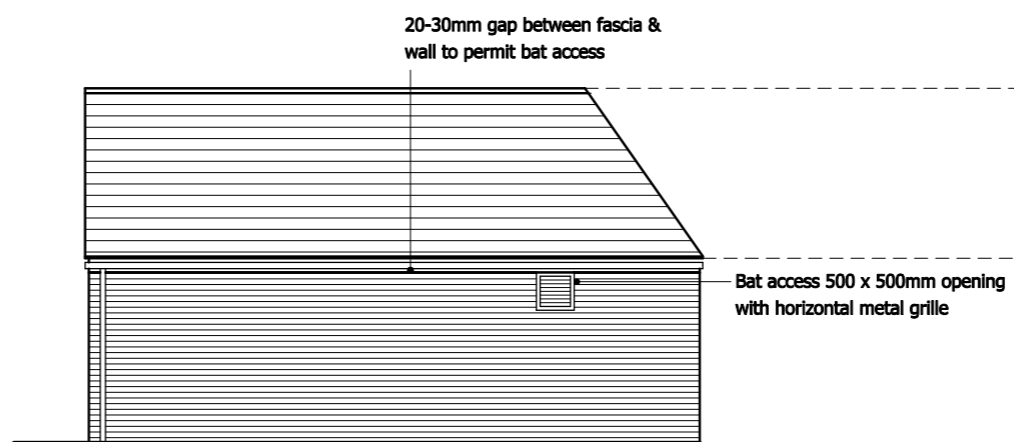
Floor Plan



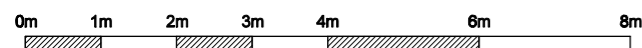
Elevation D



Elevation E



Elevation F



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Project  
**Aberthin Road**

Client  
**Hafod Housing**

Drawing Title

**Proposed Bat Roost**

NOTES. Do not scale. All dimensions are in millimetres unless stated otherwise

Date  
**Nov '18**

Scale  
**1:100 @ A3**


Drawing No.  
**3703 / PA / 020**

Rev.  
**A**

**APPENDIX VII      REPTILE RECEPTOR SITES**



Preliminary	Planning	Design	Tender	Construction
-------------	----------	--------	--------	--------------

Client: Hafod Housing Association <b>Project: Cowbridge School</b>		Drawing Title: Reptiles – LPA Suggested Receptor Sites		 4 Stangate House Stanwell Road Penarth Vale of Glamorgan CF64 2AA	
Project Code: E1884501	Initials: DF	Date: 06/11/2018	Telephone:- +44(0) 29 2040 8476		

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Costing information received from LPA

The highlighted category is the one the reptile population at this site falls into

## Appendix F.

### Reptile translocation to Countryside sites.

Description	Current 2017 18	Proposed 2018 / 19
Translocation of reptiles.  Surveyed population <5.  Estimated population <50.	N/A	£10,000.00. Countryside team to maintain habitat and monitor population for a 10 year period.  Developer to carry out all site preparation works and all reptile translocation.
Translocation of reptiles.  Surveyed population 5 - 10.  Estimated population 50 - 100.	N/A	£15,000.00. Countryside team to maintain habitat and monitor population for a 10 year period.  Developer to carry out all site preparation works and all reptile translocation.
Translocation of reptiles.  Surveyed population 10 - 20.  Estimated population 101 - 500	N/A	£20,000.00. Countryside team to maintain habitat and monitor population for a 10 year period.  Developer to carry out all site preparation works and all reptile translocation.
Translocation of reptiles.  Surveyed population > 20  Estimated population >501	N/A	£30,000.00. Countryside team to maintain habitat and monitor population for a 10 year period.  Developer to carry out all site preparation works and all reptile translocation.



Preliminary	Planning	Design	Tender	Construction
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Client: Hafod Housing Association Drawing Title: Reptiles – Potential Alternative Receptor Sites  
**Project: Cowbridge School**

Project Code:E1884501

Initials: DF

Date: 06/11/2018

**soltysbrewster**

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