



Bat Survey

Cymmer Bowls Club,
Cymmer,
Port Talbot,
SA13 3EP

DKEcology
20 Glanymor Road,
Loughor,
Swansea,
SA4 6SA

Tel: 01792 410407

Email: dkearsleyevans@gmail.com

In association with

Biodiversity Solutions

Mullock Cottages,
Marloes,
Haverfordwest,
Pembrokeshire,
SA62 3AS

Tel: 01646 636754

Email: mail@biodiversitysolutions.org.uk

Web: www.biodiversitysolutions.org.uk

Subject	Date	Author	License number
Draft report for review	22 nd August 2022	Debbie Kearsley-Evans	S087704/1
Final report	26 th August 2022	Debbie Kearsley-Evans	S087704/1

This report is valid for 2 years

CONTENTS

	PAGE
EXECUTIVE SUMMARY	2
1.0 INTRODUCTION	4
2.0 PLANNING POLICY AND LEGISLATION	4
3.0 METHODOLOGY	7
3.1 Desk top study	7
3.2 Preliminary roost assessment	7
3.3 Activity surveys	8
3.4 Limitations	8
4.0 RESULTS	9
4.1 Desktop study	9
4.2 Preliminary roost assessment	10
4.3 Activity survey	12
5.0 INTERPRETATION AND ASSESSMENT	12
6.0 CONCLUSION	14
7.0 RECOMENDATIONS	15
8.0 REFERENCES	19
APPENDICES	20
APPENDIX 1: Photographs	20
APPENDIX 2: Survey results	28
APPENDIX 3: Plans	39
APPENDIX 4: Enhancements	34
APPENDIX 5: Glossary	35
APPENDIX 6: Additional information	37
APPENDIX 7: Disclaimer	38

Executive Summary

- DKEcology was commissioned to undertake a Protected Species Survey for Bats at Cymmer Bowls Club, Cymmer, Port Talbot, SA13 3EP, to verify whether bats are currently using the existing buildings and 2 adjacent Lawsons Cypress trees, if present how bats are using the buildings/trees and to calculate the numbers, species, and roost locations. The existing pavilion and changing rooms are to be extended and the lawson cypress trees are to be felled; the survey will determine if any bats might be impacted by the proposed works.
- The property is situated on the outskirts of the village of Cymmer, near Port Talbot approx. 5km north of the centre of Maesteg, (Grid ref: SS 855 959). It is located on the south side of the river Afan valley alongside the main valley road (A4107). Within 5m of the south side of both buildings an extensive well vegetated steep valley slope runs for several kilometres to the east and west along the valley providing immediate connectivity to extensive areas of diverse habitat suitable for supporting most bat species. Although separated from the river Afan itself by the main road, the river Afan lies only approx. 225m to the north, the area has very little street /external lighting and so there is unhindered access north and in fact extensive areas of well-connected suitable habitat for several kilometres within 50m in all directions.
- The property consists of 2 single storey detached buildings, the pavilion (club house) and the changing rooms. Both buildings are to be extended to the north and 2 lawson cypress (*Chamaecyparis lawsoniana*) trees approx. 90 years of age.
- An initial preliminary roost assessment survey of the buildings/trees was undertaken by DKEcology on the 13th June 2002. Both buildings and 1 of the trees were assessed as having low potential for supporting bats. No evidence of use of the buildings/trees by bats was noted.
- An emergence survey of both building and the adjacent Cypress trees was carried out on the 21st June 2022. The methods, and findings of which are the subject of this report. All surveys followed best practice guidance from the Bat Conservation Trust (Collins 2016).
- No bats were observed emerging from either building/trees during the survey.
- The evidence found during the preliminary roost assessment and activity surveys suggests that both the pavilion and changing room buildings and both Cypress trees are not currently being used by any species of bat and there is no evidence to suggest that a maternity roost or a large numbers of bats are using the property currently or historically. The proposed works are highly unlikely to result in the destruction/disturbance of bats or their roosts. **Therefore, a European Protected Species licence will not be required.** However, the final arbitration is with Natural Resources Wales and the Welsh Government.
- To provide biodiversity enhancement, it is recommended that 1 bird nesting opportunity and 1 crevice bat roost opportunity be incorporated in the development. It is recommended that

external lighting meet the recommended specifications to ensure that lighting levels are kept to a minimum.

- There are a small number of ecological constraints associated with this development, but they do not pose any barriers to development as all ecological issues can be dealt with through reasonable mitigation, compensation, and enhancement measures.

1.0 INTRODUCTION

- 1.1 DKEcology undertook a protected species survey for bats at Cymmer Bowls Club, Cymmer, Port Talbot, SA13 3EP.
- 1.2 The existing pavilion and changing rooms are to be extended and 2 lawson cypress trees are to be felled. If bats are present the works have the potential to impact bats and their roosts.
- 1.3 A daytime Preliminary Roost Assessment survey of both buildings and trees was carried out on the 13th June 2022 followed by a dusk emergence survey on the 21st June 2022 to verify whether any bats were currently using the property and to calculate the numbers, species, and roost locations.
- 1.4 This report confirms the findings of the above surveys, completed in June 2022.

2.0 PLANNING POLICY AND LEGISLATION

- 2.1 The following local and national planning policy relating to nature conservation and biodiversity are considered of relevance to the current proposal.
- 2.2 Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species, including all bat species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2010.
- 2.3 There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

Planning Policy Wales and Technical Advice Note 5

- 2.4 This document set out the land use planning policies of the Welsh Assembly Government, with Chapter 5 dealing with Conserving and Improving Natural Heritage and the Coast. The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TAN's).
- 2.5 TAN 5 (Welsh Assembly Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.
- 2.6 Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long-term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national, and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a stepwise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered;

Wildlife & Countryside Act 1981

- 2.7 The Wildlife & Countryside Act 1981 (as amended) is the primary legislation for England and Wales for the protection of flora, fauna, and the countryside. Part I within the Act deals with the protection of wildlife.
- 2.8 The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.
- 2.9 There are 'defences' provided by the legislation. These are cases where acts that would otherwise be prohibited by the legislation are permitted. Notably these allow things to happen that are reasonable, unpredictable, and unavoidable, such as running over a badger on the road.
- 2.10 Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example, scientific study that requires capturing protected animals can be allowed by obtaining a license. Trade in the more widespread species is also permitted if licensed.

Conservation of Habitats and Species Regulations 2010 (as amended)

- 2.11 The Conservation of Habitats and Species Regulations 2010 ((amended in 2012) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales)) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.
- 2.12 These regulations provide for the designation and protection of domestic and European Sites (e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]) the protection of European Protected Species (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) and the adaptation of planning controls for the protection of such sites and species.
- 2.13 Under the regulations, public bodies (including the Local Planning Authority) have a duty in exercising their functions to have regard to the EC Habitats Directive.
- 2.14 Licensing: certain prohibited actions under the Regulations may be undertaken under licence by the proper authority. For example, where an EPS has been identified and the development risks intentionally, recklessly, or deliberately affecting an EPS, then a 'development licence' may be required.

3.0 METHODOLOGY

The survey was undertaken in accordance with current and appropriate guidelines for bat surveys stated in Bat Surveys for Professional Ecologists: Good practice guidelines, 3rd edition (Collins, J. (Ed.), 2016) & The Bat Workers' Manual, 3rd edition. (Mitchell-Jones, A.J., & McLeish, A.P. (Ed.), 2004) by a licensed and experienced bat ecologist.

3.1 Desktop study

- 3.1.1 A Local Records Centre data search was carried out over a 1km radius from the site for species (priority species, species of conservation concern and locally important species), designated sites and phase 1 habitats.
- 3.1.2 A review of Local Biodiversity Action Plans was carried out to assess if additional ecological considerations were necessary at the planning stage for any of the species and habitats listed.
- 3.1.3 DEFRA's MAGIC website (DEFRA, 2018) was used to locate designated wildlife sites within 10km of the property. Any sites designated for reasons associated with bats were noted.
- 3.1.4 Aerial/satellite photographs were also consulted. These, as well as external and internal images of the property, are presented in Appendix 2.

3.2 Preliminary Roost Assessment survey

- 3.2.1 The buildings and 2 trees were inspected for bats with the aid of high-powered lamps and close focussing binoculars on the 13th June 2022 by Debbie Kearsley-Evans (NRW licence SO87704/1), a licensed and experienced bat ecologist.
- 3.2.2 The potential of the buildings and trees to support roosting bats was assessed, along with a search for signs of use by bats (for example droppings, moth wings, scratch marks, staining, etc.) or the actual presence of bats.
- 3.2.3 The roost potential of the buildings/trees was assessed and categorised as shown in table 1:

Table 1: Assessing potential suitability of proposed development sites for bats (Modified table taken from Bat Survey Guidelines [2016], Table 4.1)

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
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 (i.e. unlikely to be suitable for maternity or hibernation).	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.

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 (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
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.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.
Confirmed roost	Evidence of use by bats or actual presence of bats observed.	

3.3 Activity surveys

- 3.3.1 A dusk emergence survey was undertaken on the 21st June 2022. Four surveyors were present during the dusk survey (Debbie Kearsley-Evans, Marilena Durant, Sarah Allen and Nadine Weaver). The weather was clear, calm, and dry with temperatures of 16°C.
- 3.3.2 For the dusk emergence survey, surveyors were on site a minimum of 15 minutes before sunset (start time: 21:21; sunset 21:36) and remained on site for 1.5 hours after sunset (survey finished: 23:06), in line with BCT Guidelines (Collins, 2016).
- 3.3.3 A combination of heterodyne and frequency division detectors were used, including Anabat SD2 units and echometer Touch Pro. Surveyors positioned themselves so that all aspects of the building being surveyed were visible during the survey.

3.4 Limitations

- 3.4.1 Bats are a difficult group to survey for and it is usually signs of their activity rather than their actual presence that indicates the existence of a bat roost. However, many species of bat in the UK are crevice dwelling, and signs of bats and the bats themselves can be difficult to find within a building. The combination of a daytime scoping survey and dawn and dusk activity surveys aimed to address these difficulties, although for small roosts individual bats can be missed by surveyors. However, best efforts were made to record activity and observe actual behaviours at the site.
- 3.4.2 A daytime scoping survey for bats is therefore primarily used to assess the potential of any buildings/trees to support bats. This assessment is based subjectively on the surveyor's knowledge and experience as to whether bats are reasonably likely to be present. Each building/tree or structure is surveyed for features that could be exploited by each bat species

and is assessed in association with its location within the context of both its immediate environs and the wider landscape.

- 3.4.3 All of the external and internal areas of the buildings and both trees were examined adequately for signs of potential bat access points, as well as signs of droppings and staining apart from the void above the ceiling in the changing rooms which could not be accessed.

4.0 RESULTS

4.1 Desktop study

- 4.1.1 This section reports on the findings of the desktop survey.

4.1.1 Habitat context

- 4.1.1.1 The property is situated on the outskirts of the village of Cymmer, near Port Talbot approx. 5km north of the centre of Maesteg, (Grid ref: SS 855 959). It is located on the south side of the river Afan valley alongside the main valley road (A4107). Within 5m of the south side of both buildings an extensive well vegetated steep valley slope consisting of a mixture of young deciduous and coniferous saplings and scrub with areas of bare ground which runs for several kilometres to the east and west along the valley providing immediate connectivity to extensive areas of diverse habitat suitable for supporting most bat species. Although separated from the river Afan itself by the main road, the river Afan lies only approx. 225m to the north, the area has very little street /external lighting and so there is unhindered access north and in fact extensive areas of well-connected suitable habitat for several kilometres within 50m in all directions including semi natural broadleaf woodland, semi-improved and unimproved grassland, conifer plantation, heathland, fen and mire.

4.1.2 Protected sites

- 4.1.2.1 There are no designated sites within 1km of the property and there are no sites designated in relation to bat species within 10km of the site.
- 4.1.2.2 There are a number of non-statutory sites within 1 km of the property including 4 Sites of Interest for Nature Conservation (SINC) including The Afan Mineral Railway (SINC), Cymer Tip, NPT watercourses and Caerau North. The slope immediate adjacent to the south boundary of the property is an NRW Priority Area Woodland (PAWS) as well as a priority area plantation on an ancient woodland site. A priority area for ancient semi natural woodland is located along the river to the north of the site.
- 4.1.2.3 The Afan Forest Park which is part of the National Forest for Wales lies approx. 1.5km to the west of the property.

4.1.3 Species records

- 4.1.3.1 A large number of records were generated by the local record centre search. The LRC search returned 419 priority species, 206 species of conservation concern and 189 locally important species. No species records were noted within the property boundary. The most relevant to the proposed development have been selected.
- 4.1.3.2 The bat species included 6 records of common pipistrelle (*Pipistrellus pipistrellus*) and 4 records of a Pipistrelle species ranging from 455m-996m from the site.
- 4.1.3.3 The only other relevant records of priority mammal species are for hedgehog (*Erinaceus europaeus*) the closest record 566m from the property.
- 4.1.3.4 There are numerous records of reptile and amphibian species the majority of which are along the river valley to the north and west of the property. Species include grass snake (*Natrix Helvetica*), common toad (*Bufo bufo*), common frog (*Rana temporaria*), slow worm (*Anguis fragilis*) and adder (*Vipera berus*). The closest records are for adder 292m, slow worm 354m and common frog 399m. The client reported seeing a grass snake on the bowling green
- 4.1.3.5 There are a number of records of bird species. The most relevant roof nesting species within 1km of the site include house sparrow (*Passer domesticus*), house martin (*Delichon urbicum*), swallow (*Hirundo rustica*), swift (*Apus apus*), Pied wagtail (*Motacilla alba*), and blackbird (*Turdus merula*).
- 4.1.3.6 Nightjar (*Caprimulgus europaeus*) were noted flying and calling over the vegetated bank to the south of the property during the dusk emergence survey and there are 2 records of nightjar 399m and 985m from the site.

4.1.4 History of bat use

There is no known history of bats using the property.

4.2 Preliminary roost assessment

- 4.2.1 The property consists of 2 single storey detached buildings, the pavilion (club house) and the changing rooms. The pavilion is a wooden framed building built in the 1920's. The exterior of the building is sealed with wooden cladding, and it has an A framed roof covered in metal roof sheets. A veranda runs along the east side of the building. Internally the building is well lit and open to the roof line which is well sealed with no potential access points noted. The building has no loft spaces.
- 4.2.2 All of the external walls of the pavilion are well sealed and the roof sheets intact. Metal dry verges are fitted on both gables. A small number of crevice gaps that could be used by bats were noted along the eaves to the west and on the north and south gables of the pavilion. No free flight access points in to the property were noted.
- 4.2.3 The changing rooms are a modern single storey building constructed of rendered cement blocks with an A framed roof covered in metal sheets. Wooden fascias are fitted along the

east and west elevations and metal dry verges along both gable walls. Internally the building has a ceiling, but the roof void was not able to be accessed. The interior is well lit and sealed with no potential access points noted.

4.2.4 All of the external walls of the changing rooms are well sealed and the roof sheets intact. A small number of shallow crevice gaps that could be used by bats were noted along the west and east eaves. Raised sections of the dry verge were also noted along the north and south gables and behind the of the building. No free flight access points in to the property were noted.

4.2.5 The property currently has 5 external lights which are all switch operated. 2 mounted under the veranda of the pavilion and which is enclosed by shutters during the night, 1 on the south gable of the pavilion, and 2 on the changing rooms 1 on the south and east elevations.

4.2.6 There are 2 mature lawson cypress trees (tree 1 and 2) immediately located to the north of the pavilion. Both of these trees are scheduled to be felled in order to enable the extension of both buildings to the north (see plans for the locations of the trees in Appendix 3).

4.2.7 Tree 1: A 2 stemmed lawson cypress tree approx. 90 plus years of age located closest to the north gable of the pavilion. Signs of historical branch pruning. No potential access points or roost sites were noted.

4.2.8 Tree 2: A 4 stemmed lawson cypress tree approx. 90 plus years of age located immediately north west of the pavilion. Signs of historical branch pruning. A small number of features were observed that had the potential to support individual bats opportunistically.

Feature 1: 3 small areas of raised bark at various aspects from 10m upwards.

Feature 2: A crevice between folded/entwined branches at 20m on the east side of stem 3 with a south facing access point.

4.2.9 A regularly mown small patchy lawned area with 1 or 2 small garden shrubs lies immediately to the north and west of the pavilion consisting of a mixture of common grass and herb species such as yorkshire fog (*Holcus lanatus*), common bent (*Agrostis capillaris*), cocksfoot (*Dactylis glomerata*), fescue species, creeping buttercup (*Ranunculus repens*), Cleavers (*Galium aparine*), daisy (*Bellis perennis*) and dovesfoot cranesbill (*Geranium mole* L.). A boundary privet hedge is located to the west and north of the buildings. Piles of composted grass cuttings were noted along the base of the north and west boundary hedges. The remainder of the property consists of amenity grassland and paved walkways. The well vegetated valley slope within 5m of the south of both buildings consists of a mixture of young deciduous and coniferous saplings and scrub with areas of bare ground however access into this area was not possible.

4.2.10 Both buildings and tree 2 were assessed as having low potential for supporting bats Therefore, it is recommended that a minimum of 1 bat activity survey of both buildings and Tree 2 be carried out to verify bat presence or absence during the bat breeding season, which runs between May-August.

- 4.2.11 Tree 1 was assessed as having negligible potential for supporting bats and therefore no further survey work is required.
- 4.2.12 No evidence of nesting bird activity was noted in either building or in tree 1 and 2 during the survey.

Appendix 1 shows photographs of the site.

4.3 Dusk emergence survey

- 4.3.1 In total, 2 species of bat were recorded during the survey: Common Pipistrelle (*Pipistrellus pipistrellus*) and Brown Long Eared (*Plecotus auritus*).
- 4.3.2 There was a low but consistent level of activity during the survey dominated by common pipistrelle with a single pass by a brown long eared bat. No activity was detected for the first 44 minutes of the survey. From 22.04 to the end of the survey intermittent feeding passes were noted with bats observed flying along the bank to the south west and also flying onto the property from the north east. Feeding was also noted over areas of the bowling green and over the vegetation north of the changing rooms. A single pass by a brown long eared bat was noted at 22.32 flying north east to south west between the buildings and towards the bank. Activity during the emergence survey can be seen in Appendix 2.
- 4.3.3 No bats were seen to emerge from either building or the adjacent cypress trees and in fact only 1 call by a common pipistrelle bat and a brown long eared bat were noted within the expected emergence period and both of these were seen to fly onto the property from the north east.
- 4.3.4 No active external lighting was observed, and all of the property remained in darkness throughout the survey.

5.0 INTERPRETATION AND ASSESSMENT

- 5.1 The evidence found during the preliminary roost assessment and activity survey suggests that both the pavilion, changing rooms and both lawson cypress trees are not currently being used by any species of bat and there is no evidence to suggest that a maternity roost or a large number of bats are currently or have historically used the buildings.
- 5.2 This is based on the lack of signs of use by bats both inside and outside of the buildings and on both trees, no bats being observed emerging from the buildings/trees during the dusk emergence survey and only a very low level of bat activity within the vicinity of the buildings/trees within the expected emergence periods.
- 5.3 Both buildings and tree 2 do have some potential to support bats albeit it low. However, if they were being used regularly or by a larger number of bats, then more dropping evidence, and some bat activity immediately adjacent to the buildings/tree would have been expected.

Even if only 1 or 2 bats were using the buildings/tree then activity immediately adjacent to the buildings/tree 2 within the expected emergence times for the species detected during the survey would have been expected. In fact only 2 calls (1 call by a common pipistrelle bat and a brown long eared bat) were noted within the expected emergence periods and both of these were seen to fly onto the property from the north east. Most of the activity during the survey consisted of feeding by pipistrelle bats along the well vegetated bank to the south west in the latter part of the survey. Bats were observed commuting along the vegetated bank from the east and west, suggesting that bats are roosting elsewhere and then using the vegetated slope for foraging and commuting up and down the valley.

- 5.4 As part of the development the 2 mature lawson cypress trees adjacent to the north elevation of the pavilion are to be felled but no other mature vegetation is to be removed. Some bat feeding activity was noted along the east side of the changing rooms which is partially covered by the cypress trees canopy but most feeding activity was confined to the slope to the south and to the north/north west of the changing rooms over the composting area. Therefore the loss of the trees will not significantly impact on any bat foraging routes.
- 5.5 No significant vegetation is to be removed as part of the development. The extension of the pavilion and changing rooms to the north of both buildings will result in the loss of a small patchy lawned area consisting of common grass and herb species all of which are found abundantly on site and therefore the loss of a small area of these species will not be significant.
- 5.6 The proposed extension of both buildings and the felling of tree 1 and 2 is highly unlikely to result in the disturbance or destruction of any bats or bat roosts. Therefore, a European Protected Species license will not to be required to carry out the proposed works.
- 5.7 Although the survey found no evidence of bats currently or historically using either building. Bats are active within the area albeit it at a low level and are opportunistic and might move into a building/tree even while work is taking place and be found some distance from a known or potential access points in buildings. Contractors need to be made aware of these facts. If bats are found during the development, work should cease, and Natural Resources Wales (NRW) should be contacted for advice. It is recommended that works to remove any roof materials, fascias/gutters or exterior wooden cladding be carried out using the precautionary principle (see recommendations in section 7).
- 5.8 Although the survey found no evidence of bats currently or historically using tree 2. Bats are active within the area albeit it at a low level. Therefore as a precaution it would be recommended that tree 2 be soft felled. If bats are found during the felling, work should cease, and Natural Resources Wales (NRW) should be contacted for advice (see recommendations in section 7).
- 5.9 There are currently a small number of external lights on both buildings which are switch operated. The lights under the veranda of the pavilion if used will not illuminate any foraging or commuting routes used by bats and as the veranda is also sealed with shutters during the night the potential for any light spill from these lights is negligible. The lights on the south and

east elevation of the changing room and south elevation of the pavilion if used are likely to illuminate flight routes used by a small number of bats and potentially some of the vegetated slope to the south which was where most bat activity was noted. Lighting can be extremely disturbing to bats particularly more light sensitive species such as brown long eared bats of which 1 individual was seen flying along the east side of the changing rooms during the survey as well as other nocturnal species. Nightjars were observed flying along the valley slope immediately adjacent to the southern boundary of the property during the bat survey and it is highly likely that this slope is used as a corridor for numerous species as it offers good connectivity along the valley. Therefore, the well vegetated valley slope to the south and vegetation to the north west of the buildings must not be illuminated by external lighting and any existing/planned external lighting should be kept to a minimum and adhere to the specifications stated in section 7 in order to retain the current flight routes/feeding areas and a dark corridor for wildlife.

5.10 There is no evidence to suggest that any active bird nesting sites are present within either of the buildings/trees.

5.11 The desk top study returned numerous records of priority species, species of conservation concern and locally important species within 1km of the site. Although none were found within the immediate vicinity of the property a number of records were found close to the site. Increases in noise, light levels and the impact of any waste disposal, silt or run off from the site are potential issues. See section 7 for recommendations in relation to those species that may be affected by the development.

6.0 CONCLUSION

6.1 The pavilion, changing rooms and trees 1 and 2 are not currently being used as a roost by any species of bat and there is no historical evidence of use of either building/trees by bats.

6.2 The proposed works are highly unlikely to result in the destruction/disturbance of bats or their roosts. **A European Protected Species licence will not be required to undertake this work.** However, the final arbitration is with Natural Resources Wales and the Welsh Government.

6.4 It is recommended that works to remove any roof materials, fascias/gutters or exterior wooden cladding be carried out using the precautionary principle and that tree 2 be soft felled (see recommendations in section 7).

6.5 The proposed development must take into account, the legal status of nesting birds see recommendations in section 7.

6.5 It is recommended that some features to enhance biodiversity are incorporated into the development and current/proposed external lighting adhere to the recommended specifications (see recommendations in section 7).

6.7 There are a small number of ecological constraints associated with this development, but they do not pose any barriers to development as all ecological issues can be dealt with through reasonable mitigation, compensation, and enhancement measures see recommendations in section 7).

7.0 RECOMMENDATIONS

Bats

- 7.1 While no evidence of bats was found to be using either of the buildings, it is recommended that works to remove any roof materials, fascias/gutters or exterior wooden cladding be carried out using the precautionary principle set out in 7.2. When carrying out the works it is advised to be mindful that bats by their very nature are mobile and will often move between different roosts sites staying for short periods throughout the active season.
- 7.2 Precautionary principle – all roof coverings, ceilings and wall panels should be removed by hand being lifted rather than rolled and checked on their underside prior to stacking/disposal to ensure no bats are clinging to the underside. If a bat is encountered during works, it should be carefully covered and work in that area cease. Natural Resources Wales will be contacted for advice on how to proceed.
- 7.3 It would be beneficial if measures could be included to allow bats to roost at this site in the future. Renovating existing buildings or constructing new buildings provide opportunities to incorporate new bat roosts into the final structure in order to encourage bats to use the building. A crevice roost opportunity should be incorporated in the development as an enhancement.
- 7.4 Most bat species, including the dominant species recorded within the vicinity of the property, prefer crevices and cracks in walls and timbers, and they need very little space for roosting. They can be accommodated by incorporating specially constructed bat bricks/bat roost boxes into/onto walls.
- 7.5 A bat box such as a Schwegler 1WQ or suitable equivalent could be mounted on the south elevation of the pavilion see fig 7.1 and Appendix 4.

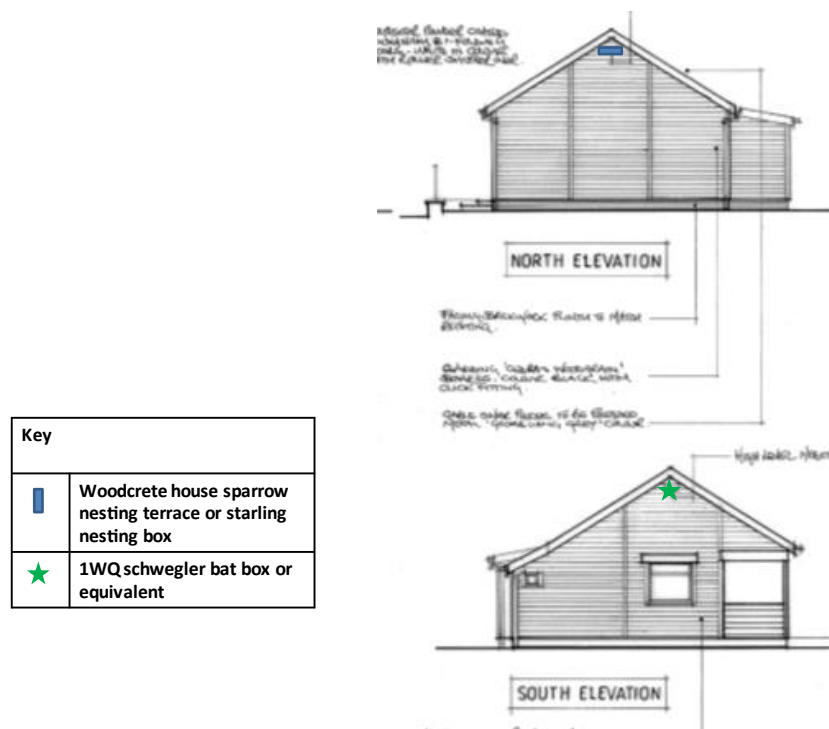


Fig 7.1 Suggested locations for bat and nesting bird enhancements

- 7.6 Care should be taken to ensure that all access points are not installed above windows or doors or close to any external lighting positions.
- 7.7 There are currently a small number of external lights on both buildings which are switch operated. The lights on the south and east elevation of the changing room if used are likely to illuminate flight routes used by a small number of bats and potentially some of the vegetated slope to the south which was where most bat activity was noted. Lighting can be extremely disturbing to bats particularly more light sensitive species such as brown long eared bats. The vegetated slope to the south must not be illuminated by external lighting and existing/planned external lighting should be kept to a minimum and be positioned no higher than 6 feet [1.8m] above the ground, will have internal downward pointing LED's, to direct the light below the horizontal plane, at an angle of less than seventy degrees from vertical, and shall not be fixed to, or directed at, bat roost access points or gables or eaves. Lighting will be less than 3 lux at ground level and there will be no light splay exceeding 1 lux along buildings, eaves or roof or adjacent hedgerows or trees. The lighting will have a warm light spectrum (2700 to 3000 Kelvin). Any lighting shall be Passive Infrared (PIR) triggered and will be on a short timer (a maximum of 20 seconds once the stimulus has passed) and be motion-sensitive only too large objects, like humans and cars, to ensure that external light levels are kept to a minimum.
- 7.8 Lighting must not illuminate any planned bat access points and should not illuminate the main areas of activity i.e. the vegetated slope to the south of both buildings, avoid illuminating the boundary hedges to the north and west and should be kept to a minimum along the east side of the changing rooms and south elevation of both buildings see Fig 7.2.



Fig 7.2 Areas where external lighting should be avoided (red) and where external lighting should be modified and kept to a minimum (yellow)

- 7.9 While no evidence of bats using the Lawson Cypress trees (Tree 1 and 2) was found as Tree 2 does have some potential to support bats albeit it low, it is recommended that Tree 2 be soft felled following the principles outlined in section 7.10. When carrying out all felling works it is advised to be mindful that bats by their very nature are mobile and will often move between different roosts sites staying for short periods throughout the active season.
- 7.10 As a precaution, and where possible, it is recommend any felling works are ideally conducted in September/October, to avoid maternity and hibernation seasons when bats are most vulnerable to disturbance. Tree 2 must be soft felled, where tree limbs are cut, and lowered with ropes and left grounded over night to allow any bats to make their way out.

Nesting birds

- 7.11 No evidence of nesting birds was noted within the buildings or Trees 1 and 2 during the survey. However as numerous bird species were active on site and there are numerous records of bird species on or close to the site this situation may change. All wild British birds (while nesting, building nests and sitting on eggs), their nests and eggs (with certain limited exceptions) are protected by law under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Included in this protection are all nests (at whatever stage of construction or use) and all dependent young until such time as the nest is abandoned and the young have fledged and become independent.

- 7.12 As such any clearance works required (e.g. of scrub/trees) should, wherever possible, be undertaken from September to February outside the bird breeding season (March to August inclusive). Alternatively, removal of trees/scrub within the bird breeding season should be subject to a check for nesting birds by a suitably qualified ecologist immediately prior to removal. If any active nests are found these will be protected, along with an appropriate buffer zone, until the nesting is complete, and the young have fledged.
- 7.13 As an ecological enhancement 1 woodcrete bird box suitable for species such as house sparrow or starling could be mounted on the north elevation of the pavilion see fig 1. Ideally, they should be placed in positions where the entrance is not artificially illuminated at night. A variety of durable, woodcrete bird boxes, including maintenance free boxes suitable for buildings are available from Schwegler ([http:// www.schweglernature.com](http://www.schweglernature.com)) and Ibstock (<http://www.ibstock.com/sustainability-ecozone.asp>).

Reptiles and amphibians

- 7.14 No reptiles, amphibians, or their signs, were noted on the property during the survey. There are no amphibian breeding opportunities on site (i.e. no ponds or standing water). However there are historical records of grass snake using the bowling green, and numerous records of 3 reptile species and 2 amphibian species within 1km of the site. Suitable reptile habitat and terrestrial phase amphibian habitat lies within 5m of the south of the buildings along the steep valley slope and within the stone retaining wall along the southern boundary. Also there are numerous potential reptile basking areas on site. So it is possible that reptile species particularly may be found moving through the site or basking. The composting piles along the north and east boundary hedge which are within a few metres of the proposed development footprint do have the potential to support breeding grass snakes but the footprint of the proposed works itself has no potential to support reptiles or terrestrial phase amphibians and any reptiles/amphibians moving through the development area would be easily spotted as the turf is regularly maintained and kept short. Therefore as long as the vegetated slope to the south remains unaffected by the development and any works close to the composting piles or the removal of the composting piles if required is carried out in a precautionary manner so as to prevent harm to any reptile species that maybe present (see recommendations in 7.15) it is highly unlikely that any reptile or amphibian species will be impacted by the proposed works.
- 7.15 Ideally any composting piles on site should be retained. If they do need to be cleared as part of the development, then clearance must not be carried out between June to October inclusive in order to avoid disturbing breeding animals or eggs. Any clearance must be carried out by hand and slowly. This will allow any animals to disperse to adjacent habitats.

Any other site clearance works including piles of timber/stones should ideally be undertaken between March and September following the methodology outlined below:

- Any scrub/long grass must be cleared using hand machinery so that the process of clearance is slow. This will allow any animals to disperse to adjacent habitats.

- Habitat should be cleared from central position outwards-this will encourage any faunal species to move to the site fringes and off site.
- Initially the clearance of any scrub/long grass should cut it down to a height of approximately 300mm. Arisings should be immediately removed from site. The remaining vegetation should then be left for at least 48 hours and before being cut down to near ground level and left for another 48 hours prior to works commencing. This should make the areas unattractive to reptiles and amphibians prior to development and thus encourage them to leave the area.
- Any wood piles or stones piles to be removed carefully and by hand.

Other mammal species

- 5.16 Records show that hedgehogs have been recorded within the area. The closest record is 566m from the site. Hedgehogs will often move through adjacent properties foraging for food. Gaps can be created under new/existing boundaries to improve habitat connectivity for hedgehogs. However the majority of the current property boundaries are already soft and so enable free movement through the property. Any new boundary treatments should not be flush to the floor. If this is not possible a series of suitably sized gaps (13cm x 13m) should be strategically placed intermittently along the new/existing site boundary to enable the free movement of hedgehogs.

8.0 REFERENCES

Bat Conservation Trust, 2010. Bats in Buildings. *Bats and the Built Environment Series: Volume 1*.

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

Department for Environment, Food and Rural Affairs (DEFRA) (2018). *MAGIC online interactive mapping service*. Accessed July 2022, at <http://www.magic.gov.uk/>

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

www.googlemaps.co.uk, accessed June 2022.

APPENDICES

APPENDIX 1: Site layout and photographs



Satellite view of the house



Satellite view of the property, placing it in landscape and habitat context



South and east elevation of the Pavilion



North and west elevation of the pavilion



South and east elevation of the changing room



North and east elevation of the changing room



West elevation of the changing rooms



Pavilion and changing room viewed from the east



Bowling green and well vegetated slope to the south



View north of the Pavilion



View looking east



View to the north



Compost heap along the north boundary Hedge



Patchy lawn area north of the pavilion



Area north of the Pavilion and changing room which is to be extended into



Retaining wall along the south boundary



Lawn area west of the pavilion

External views of the property



Inside the pavilion



Inside the changing rooms

Internal views of both buildings



Pavilion potential access/roost points



Changing rooms potential access/roost points



Tree 1 and 2 to the north of the pavilion



Tree 1



Tree 2



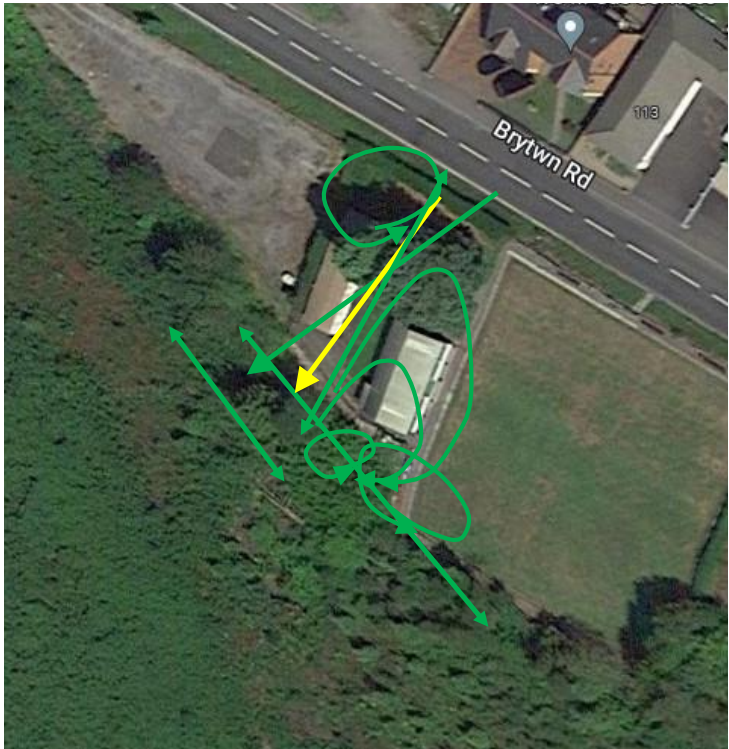
Potential roost crevice in stem 3 of Tree 2

APPENDIX 2: Survey results



KEY	
S	Surveyor

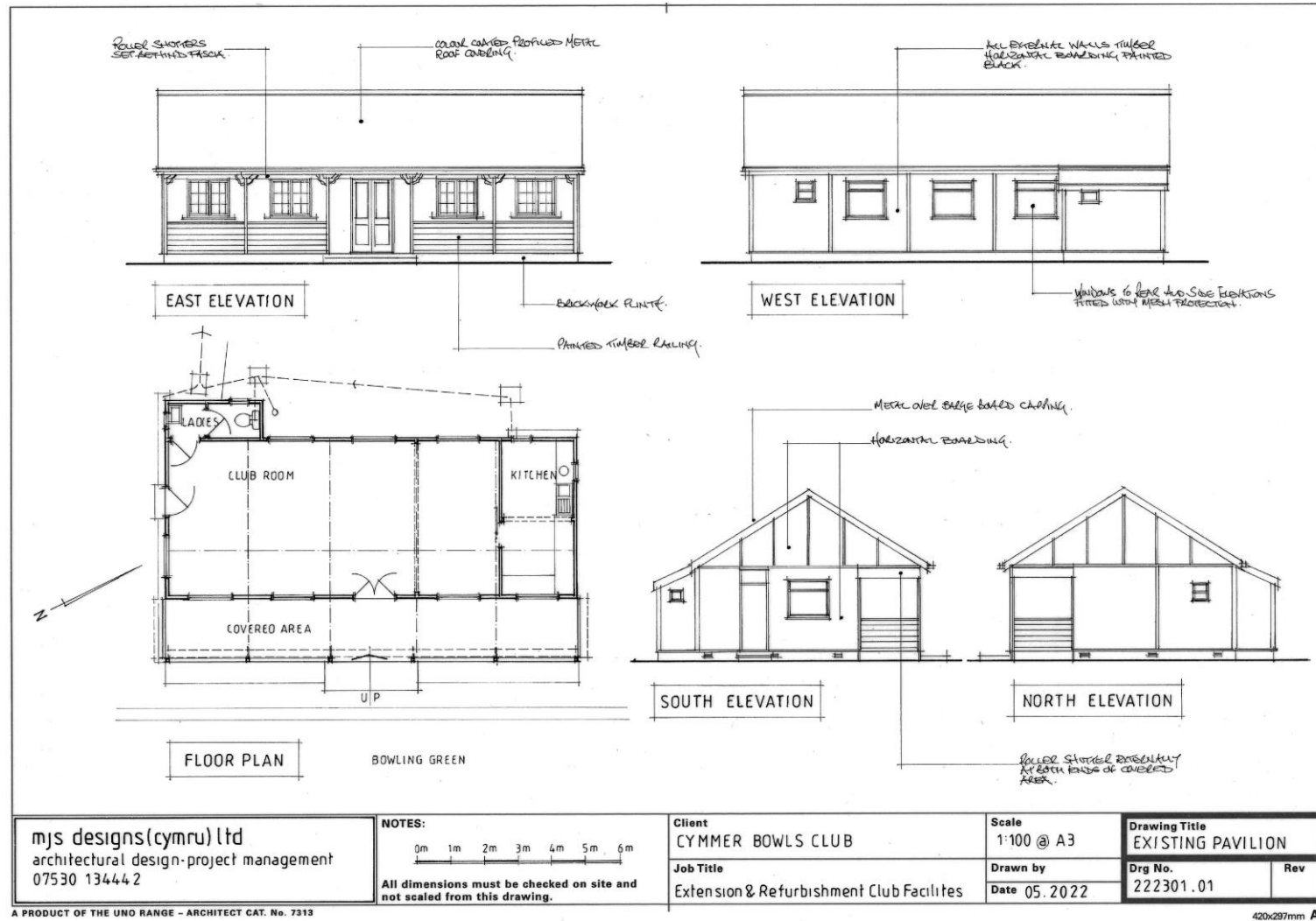
Surveyors' positions during the dusk emergence survey

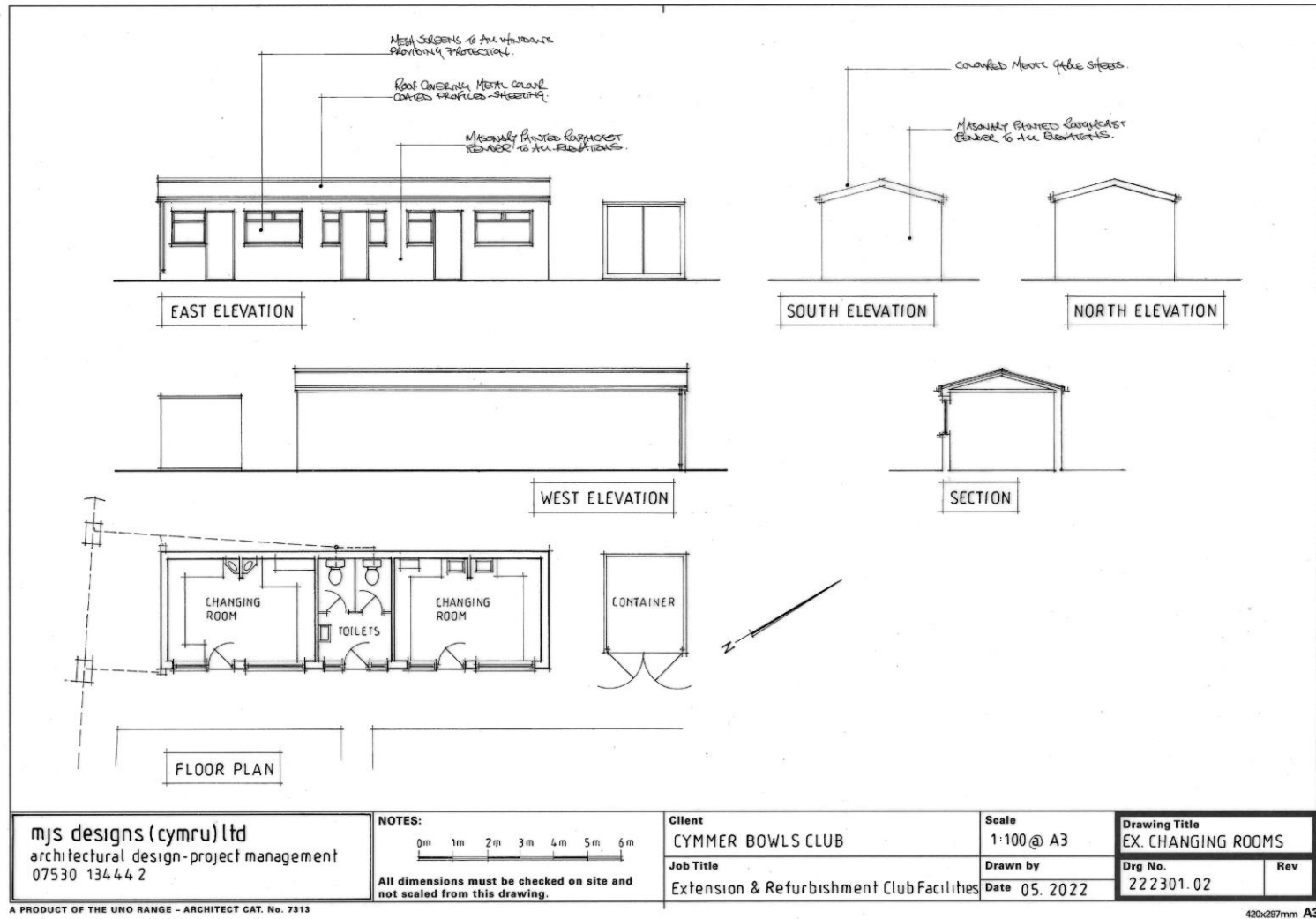


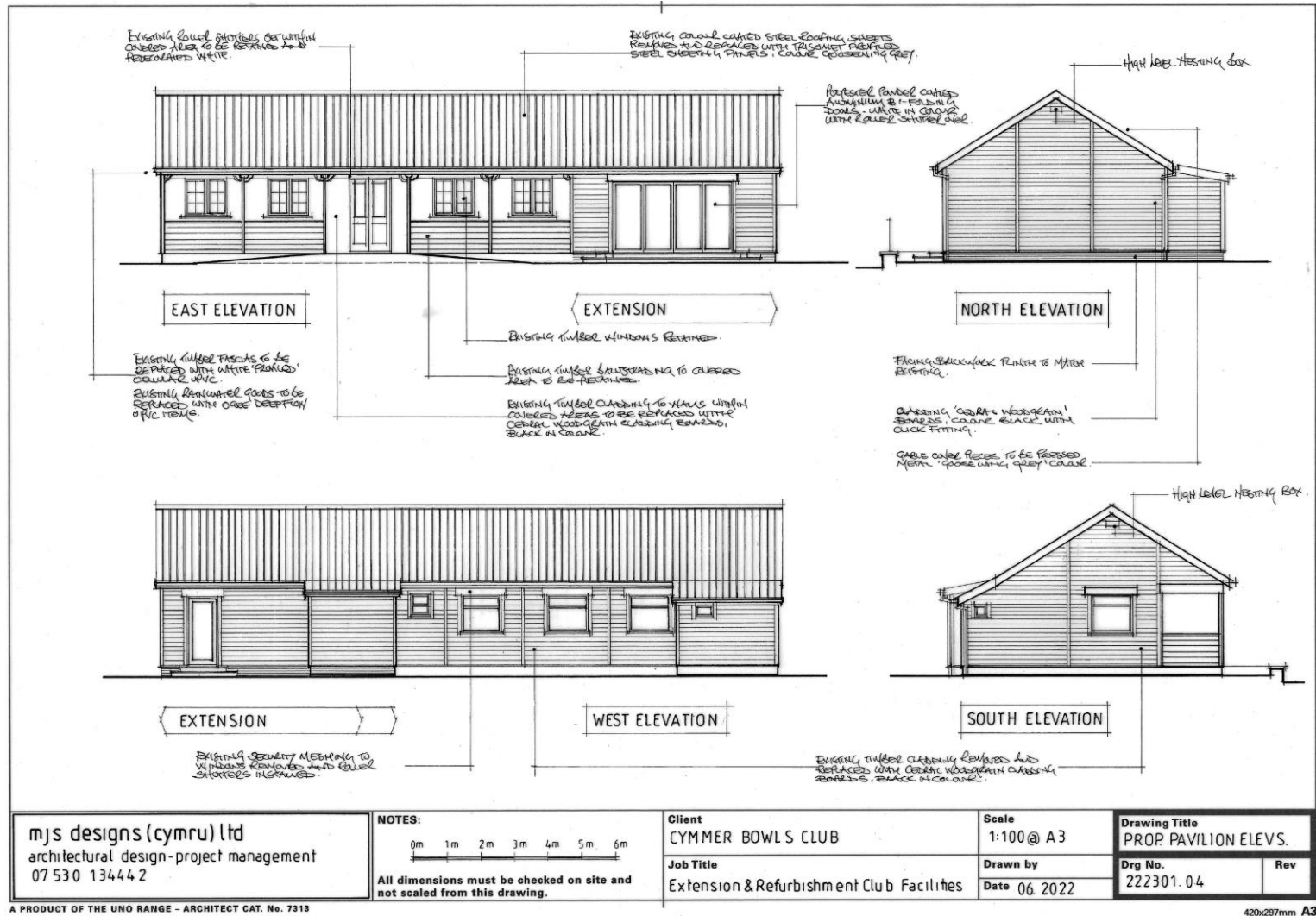
Emergencesurvey	
→	Brown long eared
→	Common pipistrelle

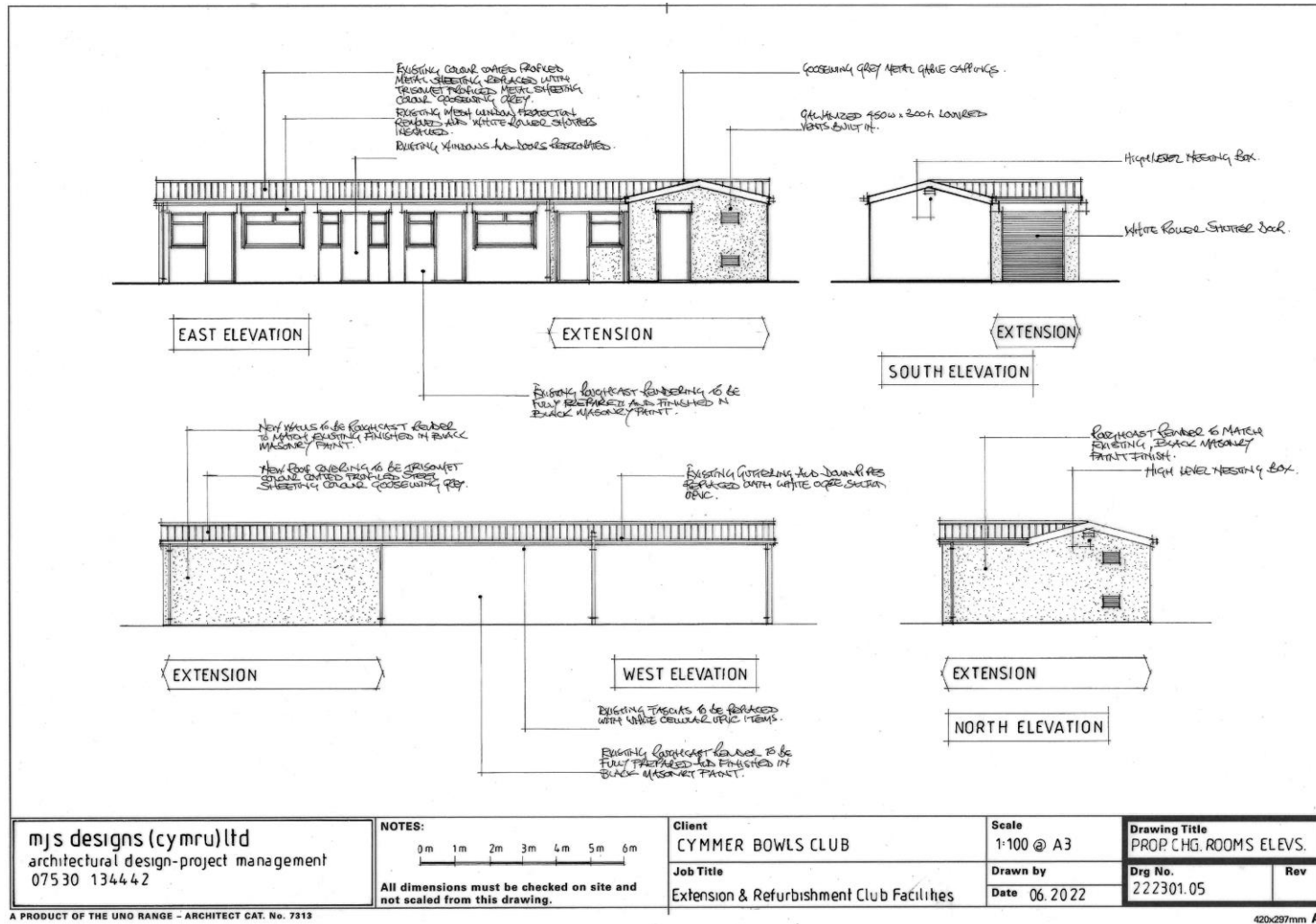
Bat activity during the dusk emergence survey

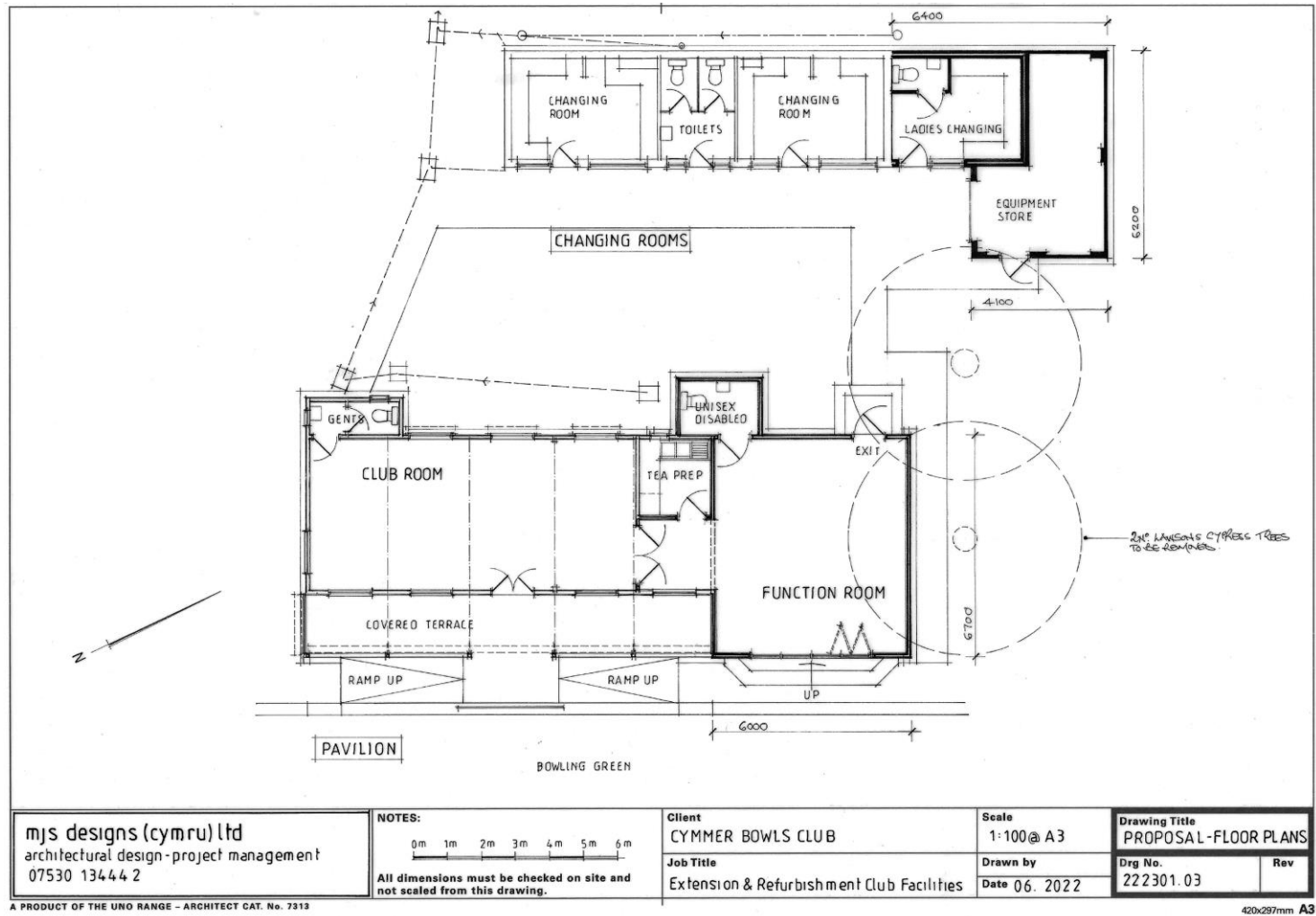
APPENDIX 3: Plans











APPENDIX 4: Enhancements



Fig 1 Schwegler 1 WQ bat box

APPENDIX 5: Glossary

Transitional roosts

April–September/October. These sites are usually used by small groups of bats prior to taking up residence in, or after dispersal from, the maternity roost before and after hibernation. They are likely to be in or close to good feeding areas.

Maternity roosts

May–August. Predominantly warm sites where female bats congregate to give birth and rear their young and stay there until the young are weaned and independent [late July –August]. The sites are frequently traditional with the same individuals returning year after year. Enclosed roof spaces, wall cavities, soffit boxes, spaces under roofing materials and a variety of tree holes and crevices are all examples. These tend to disperse between August and September. Adult males are rarely found with the females.

Satellite Roost

May–August. Breeding females may have alternative roost sites in close proximity to the main nursery colony.

Mating Roosts

September–November. All bats in the UK are Polygamous i.e. males' mate with several females. A roost site that a male bat will occupy and attempt to attract females to for mating and will defend against other males. Sometimes these occur in groups known as 'leks' and include cavities in stonework, underground sites, trees, and buildings.

Hibernation roosts

October–March. Sheltered and undisturbed places with relatively high humidity and stable temperatures throughout the winter. For example: underground sites (caves, mines, adits etc.), deep cracks and crevices in built structures (houses, bridges etc.), hollows, cracks, and crevices in trees.

Night roosts

March–November. Places away from the day roosts where bats rest after feeding during the night. These roosts vary in their conservation significance. Night roosts may be used by a single animal or the whole colony. Particular species depend on night roosts in key foraging areas e.g. lesser horseshoe bats.

Day Roosts

March–November. Daytime roosts for bats to rest in. Males of most species spend the summer roosting alone or in small groups. Bats regularly use a number of day roosts switching from one to the other depending on food sources and weather but conversely, they can be resident for weeks.

Feeding Roost

May–November. These roosts can be occupied by a single animal or a few individuals throughout the active season. They vary in significance as they may be used by one or many bats to hang up and feed, shelter from the weather, or to rest temporarily. Feeding roosts are often used by *Plecotus* and *Rhinolophus* species.

Swarming Sites

August-November. Large numbers of bats from several different species swarm around caves and mines. The bats are often *Myotis* species and appear to be important for mating. Bats travel many kilometres to attend, and a good proportion will also hibernate at these sites.

APPENDIX 6: Additional Information

a) Emergency contact numbers for bat help and advice

Natural Resources Wales (NRW): Tel: 0300 065 3000
Debbie Kearsley-Evans Tel: 01792 410407 or 07901732255

b) Further reading for information about bats

The Bat Conservation Trust website (including the 'Roost' section):
http://www.bats.org.uk/pages/about_bats.html

The Bats of Britain website: <http://www.bio.bris.ac.uk>

Eurobats website: www.eurobats.org

c) Reference material

Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature: Peterborough.
<http://www.english-nature.org.uk/pubs/publications/>

Mitchell-Jones, A. J. (2004). *Focus on Bats*. English Nature: Peterborough.
<http://www.english-nature.org.uk/pubs/publications/>

Russ, J. (2012). *British Bat Calls: a guide to Species Identification*. Pelagic Publishing: Exeter.

APPENDIX 7: Disclaimer

Copyright and Intellectual Property

- The copyright of ecology reports provided remain the property of the ecologist pending payment of the account in full.
- We provide species data sets to the local Biodiversity Information Centre on an annual basis which will include any records from your survey (species and general location.)

Accuracy of information

- Our ecologists are experienced and professional in their approach and work to published Professional Codes of Conduct (British Standard 42020:2013 “Biodiversity. Code of practice for planning and development” and CIEEM Guidelines for Ecological Report writing (2016) where appropriate. Ecologists are however working in the natural world which may be subject to rapid changes not under their control. The information they collect will be as accurate as possible based on the time of the year and the natural conditions they face but we, and they, cannot be held responsible for any changes which occur subsequently.
- The company warrants that the reports supplied will be based on information collected using reasonable care and skill. In some cases, data sets may be large, and, in such circumstances, ecologists will make professional judgements on their analysis and presentation of data.
- Most reports are valid for a maximum period of two years provided no significant changes have been made to the property or land use nearby.
- It is possible that further survey work is recommended which would be the subject of additional fees. In this event the company and the ecologists cannot accept any liability if the client proceeds without acting on this advice.
- Ecological reports provide information on the site as a whole and the company and the ecologists cannot be held responsible for the effects that the findings might have on any planning or developments proposed.

Confidentiality

- The reports provided will be for the client’s sole use and for the purposes declared in the initial contact and confirmed in our quotation.
- No other party may use, copy, or rely on the report or any of its contents or conclusions without written confirmation from the author.
- The company will maintain a copy of the reports, on behalf of the ecologist, in an electronic format. It will not be provided to any other person without the client’s consent.
- The survey data will be submitted to the Local Biodiversity Information Centre automatically unless otherwise requested

Limitation of Liability

- The company and its ecologist contractors shall not be held responsible for any claim arising out of any defect found in the service provided as a result of information provided which is subsequently found to be defective.

Contacts between the company, its ecologists and the client shall be governed by the laws of England and Wales.