

**ISG LTD**

**NEW SCHOOL PROVISION, YSGOL Y DERI, COSMESTON**

**INTERIM SURVEY NOTE, PROTECTED SPECIES**

JULY 2022



**soltysbrewster**

4 Stangate House  
Stanwell Road  
Penarth  
Vale of Glamorgan  
United Kingdom  
CF64 2AA

**Telephone:** - 029 2040 8476



**E-mail:-** [enquiry@soltysbrewster.co.uk](mailto:enquiry@soltysbrewster.co.uk)

**Web Site:** - [www.soltysbrewster.com](http://www.soltysbrewster.com).

## NEW SCHOOL PROVISION, YSGOL Y DERI, COSMESTON

## INTERIM SURVEY NOTE, PROTECTED SPECIES

DOCUMENT REF: E22107901/Doc 03. 27 JULY 2022

Issue	Revision	Stage	Date	Prepared by	Approved by	Signed
1	-	Draft for Review	27 July 2022	Ben Satherley (Ecologist)	Dr Matthew Watts (Director)	
2	Minor text corrections	For Issue	27 July 2022	Ben Satherley (Ecologist)	Dr Matthew Watts (Director)	

**CONTENTS**

**1.0 Introduction**

**2.0 Methodology**

**3.0 Results & Interpretation**

**References**

**Appendix I Proposed Site Layout**

**Appendix II Protected Species Survey Plan**

## 1.0 INTRODUCTION

- 1.1 Soltys Brewster Ecology were commissioned by ISG on behalf of the Vale of Glamorgan to undertake supplementary surveys to inform the proposed development of a new school facility (Ysgol y Deri) at Lower Cosmeston Farm (see proposed layout, Appendix I). A preliminary Ecological Appraisal (PEA) was prepared by AECOM in June 2021<sup>1</sup> which identified existing site conditions and recommended mitigation/enhancement opportunities. The PEA report also recommended that further site-specific surveys be undertaken relating to hedgerows, foraging bats, Dormice and common reptiles. The surveys for protected species are underway (from April 2022) and the findings to date (July 2022) are described in the current document.
- 1.2 Appraisal of the hedgerows along Lavernock Road and Fort Road has been reported separately (SBE 2022a) and a further report will be prepared following completion of the bat and Dormouse surveys in the autumn of 2022.

## 2.0 METHODOLOGY

### Badger Survey

- 2.1 The PEA survey of 2021<sup>1</sup> did not identify any evidence of use by Badgers at the site or within the immediately surrounding area. The report recommended that an updated walkover be completed ahead of any site enabling or construction works in order to confirm the continued likely absence of Badgers. As part of the site visits undertaken in March and April 2022 to set up the Dormouse and Reptile surveys respectively, a supplementary walkover, to include the woodland strip along the eastern boundary to search for any evidence of Badgers was undertaken by suitably experienced ecologists<sup>2</sup>. The walkover incorporated a search for any evidence of Badger activity within or adjacent to the application site boundary based on guidance set out in Harris *et al.* (1989), and was intended to:
- Locate any Badger setts within the search area;
  - Assess the status of any setts found;
  - Detect any signs of Badger activity which includes latrines, tracks and prints, hairs and foraging evidence.

---

<sup>1</sup> Ysgol Y Deri Primary School (YYD2) Preliminary Ecological Appraisal (PEA) Report. Vale of Glamorgan Council. Project number: 60629450. June 2021

<sup>2</sup> Full and Associate members of CIEEM with experience of Badger survey work

ISG LTD

New School Provision, Ysgol y Deri, Cosmeston

[Interim Survey Note, Protected Species](#)

E22108501/Doc 03

2.2 Where any setts were identified, the level of activity would be noted based on the classification described by Harris et al. (1989):

**Well-used holes** = these are clear from any debris or vegetation, are obviously in regular use and may or may not have been recently excavated;

**Partially-used holes** = these are not in regular use and have debris such as leaves and twigs in the entrance or have moss and/or other plants growing in and around the entrance. Partially used holes could be in regular use after a minimal amount of clearance;

**Dis-used holes** = these have not been in use for some time, are partially or completely blocked and cannot be used without a considerable amount of clearance.

### **Dormouse Nest Tube Survey**

2.3 In order to establish the likely presence/absence of Dormice at the site, a total of 46<sup>3</sup> Dormouse nest tubes were deployed across the site on 17 March 2022 within the boundary hedgerow and woodland habitats (see plan in Appendix II). Following best practice guidelines (e.g. Chanin & Woods, 2003), tubes are to be checked regularly up until October/November by a licensed dormouse surveyor<sup>4</sup> and notes made on the presence or absence of Dormice (i.e. observation of the animal itself or characteristic nesting materials). Occupation by species other than dormice (e.g. nesting birds and other small mammals) will also be recorded. To date, nest tube checks have been completed on 17 May, 09 June and 18 July 2022.

### **Reptile Survey**

2.4 Based on the availability of potentially suitable habitat across the site, a targeted reptile presence/absence survey was undertaken based on recommendations described by Froglife (1999). This involved the deployment and subsequent checking of artificial refugia. Refugia predominantly consisted of bitumen roofing felt (0.5 x 0.5 & 0.5 x 1.0m squares) in order to offer attractive shelter and basking opportunities for reptile species.

2.5 A total of 50no. refugia were deployed on 15 March 2022 as illustrated on the plan in Appendix II. Following a settling in period, the refugia were checked on 7no. subsequent occasions for basking and sheltering reptiles. Reptile surveys were conducted between 07<sup>th</sup> April 2022 (check 1) and 19<sup>th</sup> May 2022 (check 8 & collection); under suitable environmental conditions as defined by Froglife (1999), i.e. little or no rain/wind and temperature between 9 and 18°C.

---

<sup>3</sup> The small size of the site was such that the recommended 50no. nest tubes within the guidance could not be accommodated whilst still maintaining a reasonable spacing (10 – 20m) between net tubes.

<sup>4</sup> NRW Ref: S089089/1

## Bat Surveys

- 2.6 The proposed location for Ysgol y Deri school is within an area that was subject to surveys in 2017 to inform a proposed residential development of land allocated for housing in the VoG Local Development Plan (Upper Cosmeston Farm). As part of the survey work, bat emergence and activity transects were completed by Wardell Armstrong (2018). The activity transects included each of the vegetated boundaries of the Ysgol y Deri site with only Common Pipsitrelle *Pipistrellus pipistrellus* identified as using the on-site corridors. The woodland corridor immediately off-site to the east was found to be used by a small number of other species including Soprano Pipistrelle *P. pygmaeus*, Noctule *Nyctalus noctula* and Myotis *Myotis* sp.
- 2.7 With the exception of trees to be retained within the eastern boundary woodland, the PEA survey (2021) did not identify any features for use by roosting bats at the application site and on this basis, consideration of bats will focus on protecting/enhancing the vegetated boundaries for foraging/commuting.

### *Walked Transect Survey*

- 2.8 To identify areas of bat activity on site, a series of three visits to undertake walked transects will be undertaken. To date, 2no. visits have been completed on 28 April and 16 June 2022, with the third visit programmed for August 2022. Transect routes and locations of static detectors are illustrated on the plan in Appendix II. Each survey will be carried out by two suitably experienced ecologists<sup>5</sup> equipped with broadband ultrasonic bat detectors (Echo Meter Touch 2 or Peersonic) to allow in field and office-based identification of bat calls. Calls will be identified in the field or using computer-based sonogram analysis software (AnalookW and Analook Insight). The dusk activity surveys completed to date commenced at sunset and continued for a minimum of 90 minutes into the night, based on best practice guidelines (BCT, 2016). On each visit, two transect routes (see Appendix II) along with fixed 'spot count' observations were followed, each by a single surveyor.

---

<sup>5</sup> Full, Associate and Qualifying Members of the Chartered Institute of Ecology & Environmental Management (CIEEM) with experience of bat survey work

ISG LTD

New School Provision, Ysgol y Deri, Cosmeston

[Interim Survey Note, Protected Species](#)

E22108501/Doc 03

**Table 1 – Conditions for Walked Transect Surveys**

Visit	Temperature (°C)	Weather Conditions	Sunset	Start Time	End Time
28/04/2022	12	Clear skies (10 – 20% cloud), dry, light winds (Beaufort 1-2)	20:30	20:30	22:00
16/06/2022	20	30% cloud cover, dry, minimal wind (Beaufort 1)	21:30	21:30	23:05
August - TBC	-	-	-	-	-

*Automated Detector Survey*

2.9 To supplement the walked transect surveys, monitoring sessions involving 2no. automated detectors (Anabat Express units) left *in-situ* for 5-7 consecutive nights will be undertaken. To date, sessions have been completed between 04 – 10 May and 16 – 21 June 2022. The Anabats were deployed at two different locations across the site during the monitoring period to provide information regarding bat species diversity and distribution across the site. Locations of the fixed Anabats can be seen in Appendix II. All recorded calls were identified using computer-based sonogram analysis software (AnalookW and Analook Insight).

### 3.0 RESULTS & INTERPRETATION

3.1 The findings from the site surveys completed to date (July) are summarised in the following sections. Badger and reptile surveys have been completed although surveys for bats and Dormice are on-going with the latter not programmed for completion until October/November 2022.

#### *Badgers*

3.2 No evidence of use of the site by Badgers was identified over the course of the site visits in 2022. This is consistent with the findings of the 2021 PEA and the recommendations within that report (Section 5.4.9) remain applicable.

#### *Dormouse Surveys*

3.3 No evidence of Dormice or any other small mammals has been identified from the site checks completed in May, June and July 2022. The proposed site layout (Appendix I) will retain and enhance boundary vegetation although 2no. breaches for vehicle and pedestrian access will be required. Nest tube checks will continue to October/November 2022 to establish if specific mitigation or licensing for Dormice is required.

#### *Reptile Surveys*

3.4 No reptiles were encountered over the course of the survey visits completed in April and May 2022 (see Table 2). Based on this finding, likely absence of reptiles has been established and no particular consideration of this group would be required as part of site enabling or construction work over the majority of the site area. The finding of a Common Toad in close proximity to the woodland boundary would justify a phased, directional approach to any grassland cutting/scrub removal in this part of the site. For example any vegetation clearance within 10m of the woodland edge should be done using hand held trimmers/brush cutters or a small mower capable of cutting at a set height – e.g. 150mm above ground. Cutting should be directional to encourage any animals present to move towards the retained woodland.



**Table 2 Reptile Survey Log**

Visit	Date (2022)	Time (from)	Temp °C	Weather conditions	Slow worm			Grass Snake		Common lizard		Total	Notes
					Female	Male	Juv	Adult	Juv	Adult	Juv		
	15/03												50no. Reptile mats deployed across site
1	07/04	10:00	10	Sunny, windy	0	0	0	0	0	0	0	0	Nothing found
2	13/04	09:00	12	overcast	0	0	0	0	0	0	0	0	Nothing found
3	22/04	10:45	13	Overcast, light breeze	0	0	0	0	0	0	0	0	No reptiles found. Mats still warm despite overcast conditions.
4	25/04	09:30	13	Sunny, clear skies	0	0	0	0	0	0	0	0	Nothing found
5	05/05	09:30	16	Sunny, light breeze	0	0	0	0	0	0	0	0	Single Common Toad found under mat near woodland boundary.
6	10/05	13:00	16	Sunny, windy	0	0	0	0	0	0	0	0	Nothing found.
7	13/05	10:00	13	Overcast, light breeze	0	0	0	0	0	0	0	0	Nothing found
8	19/05	09:40	15	Partly cloudy	0	0	0	0	0	0	0	0	Nothing found

## Bat Surveys

- 3.5 The locations of the bat activity transects and automated detectors are displayed in Appendix II. The surveys completed in April and June have identified that the site is subject to low levels of bat activity by a small number of species.

### *Activity Survey – 28<sup>th</sup> April 2022*

- 3.6 During the dusk activity survey low numbers of Common and Soprano Pipistrelle were identified foraging along the site boundary features. A total of just 11 bat observations were made by the two surveyors during the walked transects with an additional 8 observations from the fixed point locations. No records of bat activity was associated with fixed points located in the centre of the field.

### *Activity Survey – 16 June 2022*

- 3.7 Bat activity levels were higher than those recorded in April although were still relatively low – for example a total of 13 observations were made by the surveyor on the western transect route. In addition to both Pipistrelle species, Noctule and Serotine were also identified. Bat activity was noted at each of the fixed point locations, including the centre of the field.

### *Automated Surveys*

- 3.8 The results of the automated surveys completed in May and June are summarised in Table 3. The automated detectors recorded a minimum of six species over the course of the two survey sessions. As noted during the walked transects, bat activity levels across the site were generally low with recording dominated by Common Pipistrelle (62.55% of calls) and Soprano Pipistrelle (23.29% of calls). The survey also identified *Myotis sp.* (11.31% of calls) however these calls were not easily identified down to a species level and so were left grouped into a single category. It should be noted that the number of bat passes included in the summary table do not necessarily relate to the number of bats – for example a high number of passes can be associated with a single (or small number) of bats regularly foraging at a given location.
- 3.9 The surveys completed to date have identified generally low levels of bat activity at the site with aerial hawking species (e.g. Pipistrelle & Noctule) accounting for most of bat records. The proposed layout would retain the existing boundary features (with the exception of breaches for access) and lighting has been designed to limit spill onto these features to  $\leq 1$  lux. These measures would permit continued use of the site and immediate local area by foraging/commuting bats.

**Table 3: Automated bat detector survey results**

Species (Passes Recorded)	May		June	
	Static 1 – Fort Road Hedgerow	Static 2 – Woodland Boundary	Static 1 – Fort Road Hedgerow	Static 2 – Woodland Boundary
Common Pipistrelle	420	316	269	609
Soprano Pipistrelle	165	292	71	73
Noctule	17	4	10	25
Serotine	0	9	4	3
Leisler’s Bat	1	0	0	0
Myotis sp.	16	232	4	40

## REFERENCES

Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. Bat Conservation Trust, London.

Chanin, P & Woods, M. 2003. Surveying dormice using nest tubes. Results and experiences from the South West Dormouse Project. English Nature Research Report no. 524.

Froglife. (1999). Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife. Halesworth

Herpetofauna Groups of Britain and Ireland (HGBI). (1998). *Best Practice and Lawful Standards*.

Harris, S, Cresswell P & Jefferies, D. (1989). *Surveying Badgers*. An Occasional Publication of the Mammal Society, No.9. The Mammal Society, London.

Soltys Brewster Ecology. 2022. *Ysgol y Deri, VoG. Ecology Statement, Hedgerows & Bat Flight Corridors*. E22107901/Doc 01

Soltys Brewster Ecology. 2022a *New School Provision, Ysgol Y Deri, Cosmeston. Hedgerow Appraisal*. Document Ref: E22107901/Doc 02. 18 JULY 2022.

Wardell Armstrong. 2018. *Cosmeston..Bat Survey Report. September 2018. Job Number: Ca11040. Report Number: Ca004*

**APPENDIX I PROPOSED SITE LAYOUT**





- Porous block paving to car park
- Pedestrian Resin Bound Gravel
- Feature Flag Paving
- Porous Macadam Colour: To be confirmed To MUGA
- Vehicle grade macadam
- Playground Safety Rubber Mat Colour: To be confirmed
- Artificial pitch Artificial grass
- Concrete Base To bin store and sprinkler tank. Note that bin store will have a central gully. With bin store with capacity for 10no. 660L bins
- Retaining wall with guardrail Indicative only. Extent to be confirmed

- SOFT LANDSCAPE**
- Existing Hedge To be protected and retained. Areas that are removed are to be translocated to a suitable location within the site as advised by ecologist.
  - Area allocated for translocated hedge species Area allocated along Laverock Road
  - Existing Tree Retained
  - Proposed Trees
  - Proposed Shrub planting
  - Proposed Rain Gardens Ornamental Shrub Planting
  - Proposed Grass General amenity mix. Existing grass to be made good where necessary with this mix too.
  - Proposed Meadow Mix For ecological benefit.
  - Proposed Planting to Raised Beds in Horticulture Area To be planted by school students

- SITE FURNITURE**
- Fixed Seating With back & arm rest
  - Pergola Timber pergola
  - Cycle Shelter with green roof. Cycle and scooter storage underneath.
  - Raised Planters Timber planters. A number to have wheelchair accessible design.
  - Storage shed A large metal shed, with security features to keep all playground equipment locked away safely
  - Play equipment A range of play equipment to be provided across all play areas. Exact type to be confirmed with school.
  - Thermoplastic playground markings A range of playground linemarkings in various colours to be provided across all play areas. Indicative graphics indicated only.
  - Canopy / shelter Anticlimb design

Notes  
Check all dimensions on site. Do not scale from this drawing. Report any discrepancies and omissions to HLM Architects. This Drawing is Copyright ©

**Soft Landscaping Strategy**

- Designed to connect the proposed school with the surrounding context, creating a cohesive landscape character within the site, which will aid the biodiversity of the site and define a range of external spaces for all
- Planting provides seasonal and sensory diversity with chosen species providing visual interest, through form, colour, texture and movement.
- We will review the use of planting to subdivide areas of surfacing. Existing trees and hedgerow will be retained as much as possible with further enhancements proposed to enhance wildlife such as birds, bees and insects
- Soft landscaping will provide the school with opportunities to play, explore, and study as well as further enhance the biodiversity of the site, the areas will include:
  - Areas to socialise and dine
  - Place for relaxation and calm with seating and shelter from the elements
  - Habitat areas created using natural materials such as logs, boulders and landform
  - A safe, accessible, and stimulating environment with fencing where appropriate with a high-quality attention to design and material choice

Rev	Description	Date	By	Chk
P09	Electric vehicle and car-share labels added.	12.05.2022	AMS	IB
P08	ISSUED FOR STAGE 3 COMMENTS	05.04.2022	SL	IB
P07	ISSUED FOR PLANNING	24.03.2022	SL	IB
P06	ISSUED FOR STAGE 3 REPORT	10.03.2022	IB	HLM
P05	Updated with new road layout and FFL +15.800	03.03.2022	IB	HLM
P04	Issued for Client engagement meeting	10.02.2022	IB	HLM
P03	Issued for Stage 2 Report	13.01.2022	SL	IB
P02	Tender Submission	21.10.2021	AMS	GW
P01	Preliminary Issue for Comment	07.10.2021	AMS	GW

Revisions  
Project  
**15-1077-01**  
**Ysgol Y Deri - Primary School**

Client  
**Vale of Glamorgan Council**  
VALEofGLAMORGAN  
BRO MORGANNWG

Title  
**Proposed Site Layout - Facing Fort Road**

Drawing No. **YYDE-HLM-00-00-DR-L-00005** P09

Scale @ A1  
Date **12.05.2022**  
Drawn **AMS**  
Checked **IB**

**HLM Architects**  
© HLM Architects  
Suite 104  
The Creative Quarter  
Morgan Arcade  
The Hayes  
Cardiff CF10 1AF  
www.hlmarchitects.com  
T. +44 (0) 29 2039 6070  
F. +44 (0) 29 2039 6080  
cardiff@hlmarchitects.com  
Cardiff CF10 1AF



**APPENDIX II     PROTECTED SPECIES SURVEY PLAN**



## Key

- Site Boundary
- - - Bat activity transect 2
- Dormouse Nest Tube/Box
- - - Bat activity transect 1
- ★ Bat static location
- Reptile mats

PRELIMINARY	PLANNING	DESIGN	TENDER	CONSTRUCTION
-------------	----------	--------	--------	--------------

ISG Ltd <b>Ysgol y Deri, Cosmeston</b>	Phase 2 Survey Plan	
E22107901 / DR01	BS      MW      25 July 2022	<div style="font-size: 8px;">           4 Stangate House            Stanwell Road            Penarth            Vale of Glamorgan            CF64 2AA         </div> <div style="font-size: 8px; text-align: right;"> <b>Telephone:-</b> 033 00 13 00 12  <b>e-mail:-</b> enquiry@soltysbrewster.co.uk         </div>

Soltys Brewster Ecology is the trading name of Soltys Brewster Ecology Ltd. Registered Offices:- 4 Stangate House, Stanwell Road, Penarth, Vale of Glamorgan, CF64 2AA. Registration No. 5779051. Dimensions should not be scaled from this drawing, only figured dimensions are to be used. All discrepancies or queries regarding this drawing should be referred to Soltys Brewster Ecology Ltd. Soltys Brewster Ecology Ltd accept no liability for any expense, loss or damage of whatever nature and however arising from variation made to this drawing or in the execution of the work to which it relates which has not been referred to them and their approval obtained.