

**YGG CWMLLYNFELL
BRYN ROAD
CWMLLYNFELL**

BAT (& protected spp.) SURVEY

September 2019-May 2020

This report is a **May 2020 amended** version of a September 2019 submitted report of survey at the school, and incorporates an additional “in season” activity survey visit.

Summary:

The initial survey was conducted late season, when summer (bat) maternity colonies can be (completely) dispersed, and access difficulty precluded full internal search for (guano) evidence of other-season use. These factors gave a reduced confidence in the “no use” findings of the 2019 survey, and the LA requested an additional emergence-watch visit in 2020.

There is no owl use of the buildings.

Common pipistrelle day-roost use of the roof of the school’s east wing was seen at one of the two autumn 2019 visits, and at the easternmost of the (three) small central dormers at the May '20 visit.

The proposed works, as detailed at November ‘19 design drawings, will have no impact on bat use of this side of the school, and the presence of these one-two animals does not constrain the works.

No bat use was seen at the west-centre or west side of the school, and this survey identifies no bat-related constraint to the proposed extensions.

Two Starling nests were noted at the west wing: disturbing (most) bird species during their nesting period is not permitted.

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September 2019-May 2020

1 survey at the request of-

Mr Jonathan Morris, Project Director- Architectural, Building Surveying & Building Structures, Neath Port Talbot CBC.

2 proposed works

New-build additional classrooms (extensions to the west “wing” of the existing building- confirmed Nov. 19).

3 site: name/grid ref

YGG Cwmllynfell, Cwmllynfell SA9 2FL
SN746126

4 nature & date of survey

Whole school survey was requested, to inform consideration of the placement of additional classrooms/buildings at the site.

Survey methodologies are implemented as appropriate, based on experienced surveyors' assessment of the features at each site and with reference to the advice in ***Bat Surveys: Good practice guidelines*** (Bat Conservation Trust, 2007/12/14) & ***Bat Workers' Manual 3rd ed.*** (JNCC 2004).

10th September 2019: external search; emergence/activity watch

26th September 2019: emergence/activity watch

11th December 2019: internal search

15th May 2020: external search; emergence/activity watch

building assessment: Daytime survey of the building exteriors was made, ahead of direct-observation sessions, in search for possible bat entry/exit and roosting points, evidence (principally faeces) of bat use of the buildings and direct evidence of roosting bats. Internal search for (principally guano) evidence-of-use was made *post* activity-survey: this search was limited by access difficulty (9.2, below).

emergence watches: On two 2019 dates and one May 2020 date, over the period during which bats can be expected to leave their roosts, direct observations were made) of building exteriors, to monitor any bat movement in or out. Heterodyne (Pettersson D200 and frequency-division (Anabat SDI/II+ ZCAIM & CF recorder; Anabat Express) bat detectors were used by observers throughout this period, to assist species detection/identification.

DNA genotyping: **n/a** (Found-at-site bat-guano which surveyors cannot assign to a bat species are submitted to Dr Robin G Allaby, University of Warwick, for species ID *via* genotyping.

overnight (dusk-dawn) remote data recording: **n/a** (At sites where initial investigation suggests that it is appropriate, Anabat (or Songmeter) detector-recorder equipment is left *in-situ* to indicate species identification and patterns-of-use at the site.)

methodology/mitigation measures, where appropriate, are based on the surveyors' experience of similar situations, with reference to ***Bat Mitigation Guidelines*** (English Nature, 2004) & ***Bat Workers' Manual 3rd ed.*** (JNCC 2004).

5 objectives

- to assess the extent of any bat or other protected species use of the building
- to identify any constraints consequent upon the discovery of bats, or other protected species, in the building.

6 surveyors

Rob Colley Associates; 4-5 Waterfall Terrace, Resolfen, Neath SA11 4EE
01639 710239 rob.colley@ecosurveys.uk.com

Rob Colley: scientific/conservation bat licence 1999-, SO86091/1
Rob Taylor: scientific/conservation licence, 1995-
Len Moran: named agent, SO86091/1
Jenny Colley: Glamorgan Bat Group, 2002-

7 ecology & legal status

7.1 Different bat species have different life-cycle strategies but, in general, each requires the following features:

- hibernation roost sites, where stable winter temperatures allow a period of winter torpor (e.g. underground sites such as caves and mines, or crevices and hollows in mature standing trees)
- nursery roost sites, where females gather in the spring/early summer to give birth and rear their single offspring (e.g. roof spaces, crevices and hollows in mature standing trees)
- roost sites for individual, or small congregations of, males during spring-autumn (e.g. roof spaces, or crevices and hollows in mature standing trees)
- an insect-productive (usually ecologically diverse) feeding environment
additionally, there is a poorly understood need for social-gathering sites at certain times of the year (e.g. the autumn mating season) for some, or all, species.

Most, if not all, British bat species are believed to be in decline; main threats to bat populations can be summarised as:

- the loss of invertebrate-rich foraging areas (eg. woodland, hedgerows, ponds)

- the loss of nursery and hibernation roosts (eg. caves and mines, roof spaces, large standing trees)
- the effects of toxic chemicals (eg. timber preservatives in roof-space roosts, agricultural insecticides which reduce prey species).

- 7.2 All British bats, and their roosts (occupied or not) are protected by i)) **The Conservation of Habitats and Species Regulations 2010** (the “Habitats Regs”); this legislation implements the EC Habitats and Species Directive in the UK, and ii) the **Wildlife and Countryside Act** (as amended by the **Countryside and Rights of Way Act 2000**) Schedule 5.

Developments which compromise the protection afforded to a European Protected Species require **Natural Resources Wales licence** (Habitats Regs). The granting of licence will be conditional on i) an agreed “works methodology”, designed to minimise impact on the bat(s), ii) agreed “mitigation”, to ensure the provision of alternative roost potential at/near the development. Where planning permission is sought, the LPA will need to know, at application stage, what methodology/mitigation is being proposed: this is to i) avoid changes in planning designs, post pp, ii) ensure that LPAs comply with reg 3(4) of the Habitat Regs, and iii) allow the Statutory Nature Conservation Organisation (NRW)) to properly advise the LPA.

These protections can be summarised as prohibiting- taking, killing or injuring a bat; damaging or destroying a roost (occupied or not); obstructing access to a roost; disturbing in-roost bats.

The Natural Environment & Rural Communities Act 2006/**Environment (Wales) Act 2016** requires all public authorities/bodies to have regard for the conservation of biodiversity- eg. when considering planning applications. **Section 6 (EWA)** requires LAs to ensure that development i) causes no significant loss of habitats or populations of species, locally or nationally and ii) provides a net benefit for biodiversity. There is a particular requirement to address those species and habitats listed by the UK Biodiversity Action Plan, in pursuance of which the Welsh Gov’t have listed Common and Soprano pipistrelles, Noctule, Brown long eared, Greater and Lesser Horseshoe, Barbastelle and Bechstein bats at Section 42 (NERC)/ **section 7 (EWA)**: Species of Principal Importance for Conservation of Biological Diversity. Implementation of these responsibilities varies across authorities but, typically, some LPAs ask for “bat accommodation” as a routine req’t, and some require survey data to be passed to a Local Records Office.

9 results

9.1 site location, adjacent habitat:

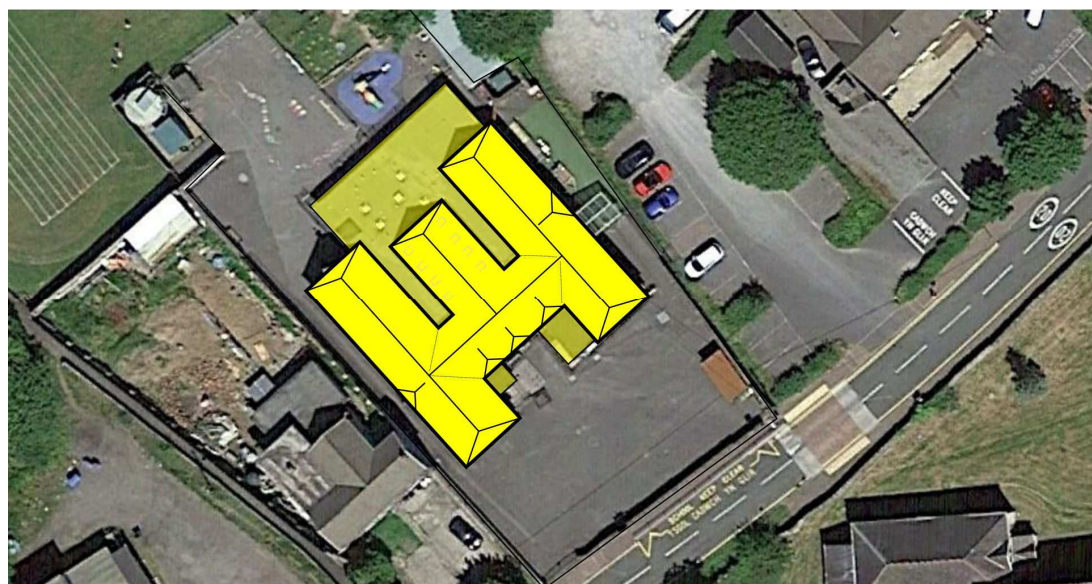
The site is at c.190m asl on the southern slope of the Black Mountain upland block, at the south side of Cwmllynfell (ribbon housing) along the coalfield-edge Cwmtwrch-Brynamman road. Beyond to-north village urbanisation, there are intensive-agriculture fields to-east/west, with well grown field-boundary hedgelines, and upland heath/rough grazing to-south. The deeply incised Twrch valley, with riparian treeline, is c.1.5km to-east.

Large gardens, field boundary hedgelines and developing scrub at nearby brownfield give foraging opportunity for generalist/opportunist bat species but the area is perhaps too exposed to weather and too poorly treed for an expectation of regular/habitual foraging by more specialist species. Maternity colony roosts of Long

earred bat *Plecotus* sp. and pipistrelle bats (three sites) are known within 2km of the site: these are all at the (sheltered, treed) Twrch valley floor, to-east; numerous winter/hibernation roost sites are known at the upland limestone to-north, >3km from site.

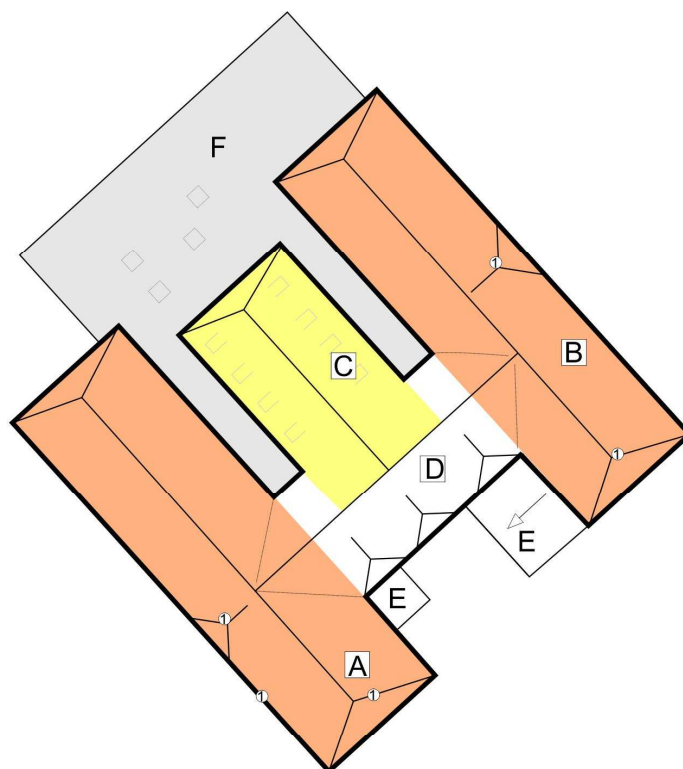


The school fronts a minor village road, with a metalled yard to-front and sides. There is a house and garden immediately beyond the west perimeter wall; there is further ribbon housing to-east, beyond a metalled car park, and over-road to-south; amenity-grass extends to-rear, to further areas of housing.



- 9.2 Buildings: general description; potential bat access points; evidence of bat presence:
annotation refers to sketch plan/photo, below

The principal (original?) building consists of two north west-south east “wings” (A & B), connected by a north east-south west central section (D) and with a third nw-se, central section (C) between the two wings. A more recent single-storey, flat roofed, section (D) is built to most of the rear of the building. There are single storey lean-to/monopitch roofed extensions (E) at each inner wing at the school frontage.



The west longwall of A is masonry; all other walls (block at D; stone at others?) are externally rendered; all walls are in good repair, with no potential bat-access intra-masonry; all (uPVC) doors/windows are intact/sealed.

Walltops at A-E are generally sealed to soffits but with potentially bat accessible gaps (eg. 1, sketch plan/photo) at slight irregularities in the render faces at the main wings' front gables, single dormer gables at each external longwall and at three front dormer gables: no bat (guano) evidence was found at walls or pavement below these possible access opportunities.

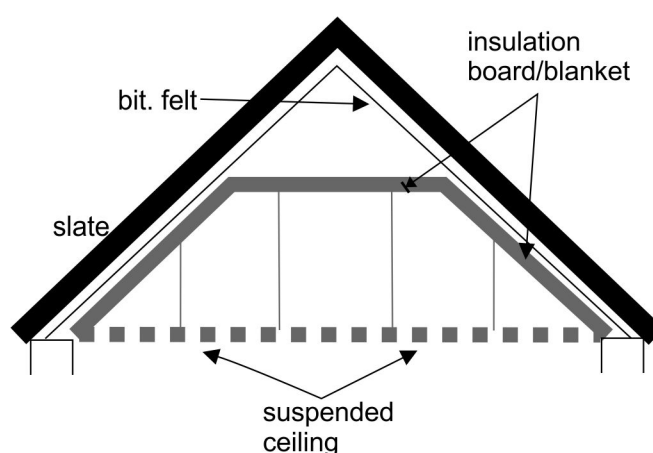
Walltops at F are tight sealed to roof edges.

The flat roof at F is tight sealed at edge fold-overs to-wall, with no potential bat-access opportunity. All other roofs are slate clad, in good repair and with no (visible from ground) bat-access opportunity; all ridge tiles are tight-bedded.

No external evidence of bat use was found at Sept '19 or May '20 visits.

Internally, the roofskin under flat roof F is beyond direct examination. At the full-height section C (the school hall), ceilings are vaulted, giving a beyond-sight "roofskin".

At all other areas, there are suspended, polystyrene tile, ceilings. Above the suspended ceilings are part-vaulted (original ceiling lines?) fibreboard/fibre-blanket (caged by chicken wire) insulation linings-



Access above the suspended ceilings was very limited. Although (open) ceiling hatches, through the insulation-board vaulted "ceilings", were visible above the suspended tiles at each of A and B, these are too far away from walls for off-ladder access (scaffold tower at room near-centre is req'd to reach these), and no access could be gained above the insulation board panelling. Off-ladder sight of each cavity between suspended tiles-insulation boarding was made, from each inner gable: no bat evidence was found. Limited sight of the over-insulation/under-roof cavity was possible at pipe/cable-run breaks: large, simple rafters and r'board were visible, with bituminised felt sarking throughout.

9.3 emergence watches:

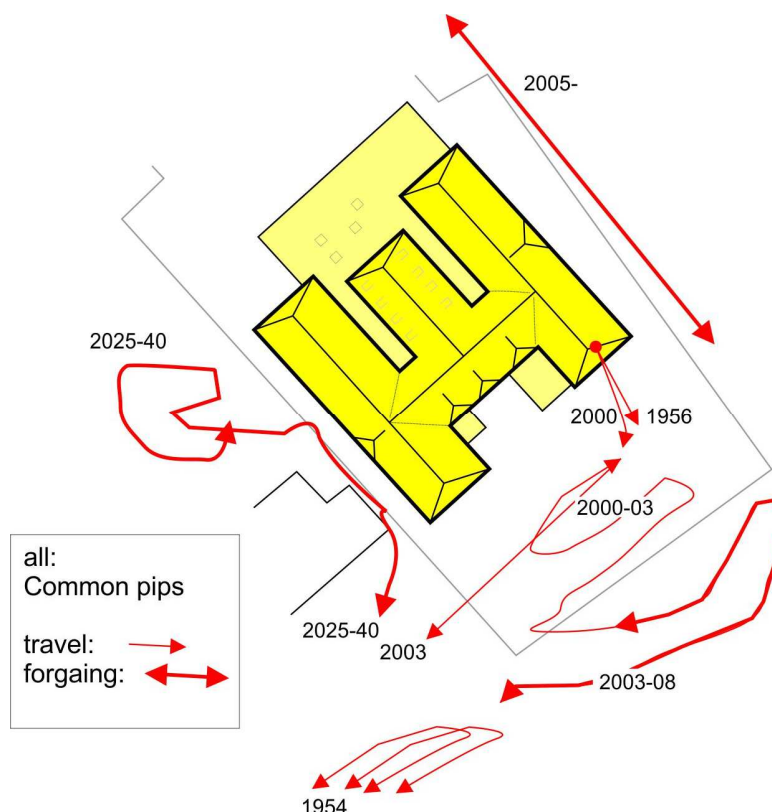
Observers were positioned to allow detection of any bat movement from-, to- or across- the building perimeters, and all of the taller, masonry walled, school was under direct observation on both dates.

Common pipistrelle *P. pipistrellus* was seen/heard at the site.

9.3.1 10th September 2019
 1930-2035
 start temp. 13°C; 90% cloud, wind fc2 sw

Common pip: x2 bats were seen/heard over-road to-south, 1954; x2 emerged from the south gable (close to apex) of the east wing (B), 1956/2000- x1 flew at the front yard/adjacent (to west) garden, 2000-08, x1 immediately left site to-west; x1 flew at east perimeter scrub, 2005-end; x1 flew at/around to-west house/garden, 2025-40.

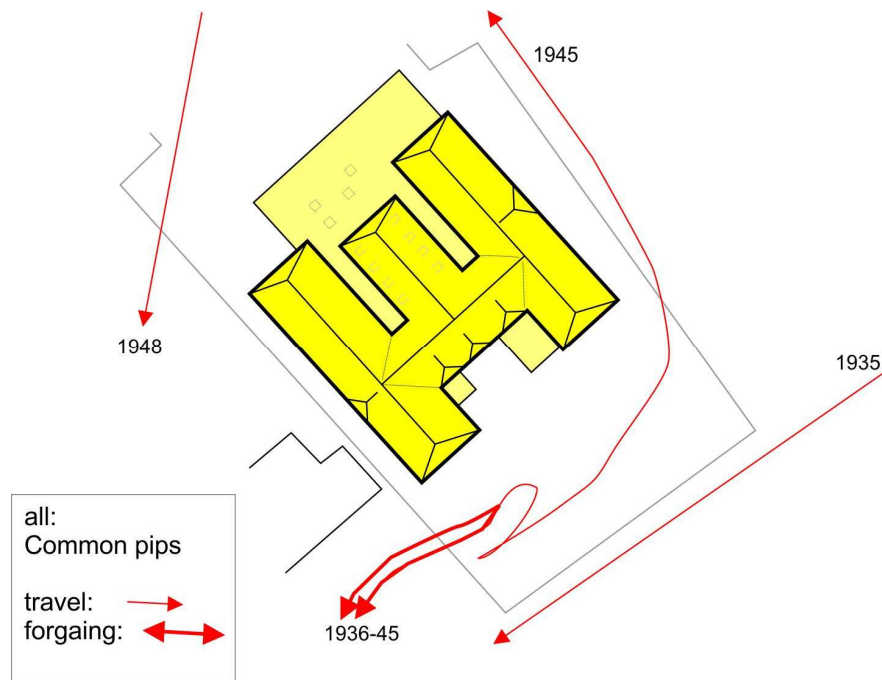
No other bats were seen/heard.



9.3.2 26th September 2019
 1845-2000
 start temp. 13°C; 100% cloud, no wind

Common pip: x1 flew up road, from east, 1935, and foraged at adjacent garden/school yard, 1936-45, before flying off site (to north east), 1945; x1 (same animal?) passed across rear of site, 1948.

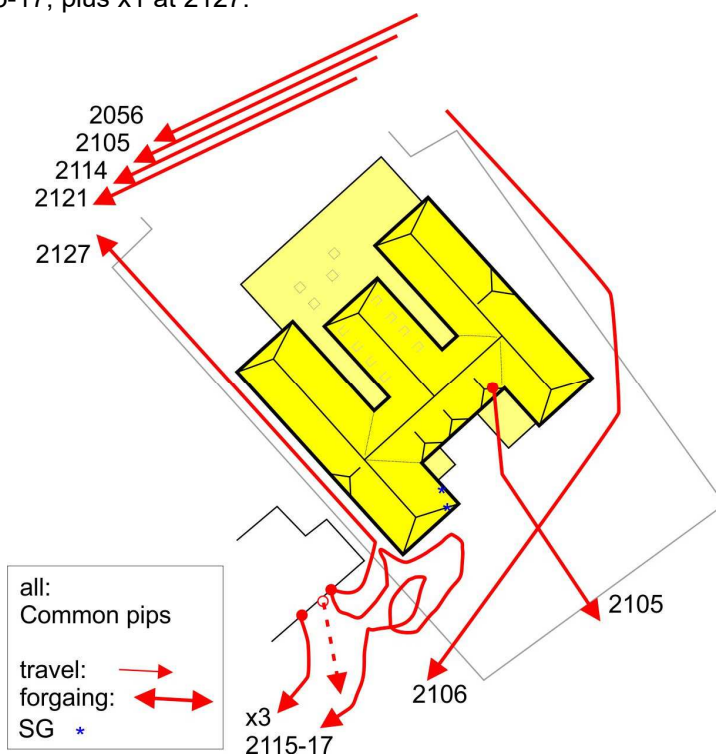
No bats emerged from, or entered, the school buildings; no other bats were seen/heard.

9.3.3 15th May 2020

2025-2150

start temp. 14°C; 50% cloud, wind fc2 nw

Common pip: x3 east-west across (playing field) to-north/rear of site, 2056-2121; x1 from same direction, down east side of site & across front yard of school, 2106; x1 emerged from right/east pitch of easternmost small dormers at centre section of school, 2105; x2 (possx3) emerged from behind (south) fascia at adjacent-to-west house, 2115-17, plus x1 at 2127.



9.4 overnight (dusk-dawn) remote data recording: n/a

9.5 DNA genotyping: n/a

9.6 other-season use- assessment:

No “likely” winter-roost sites were identified.

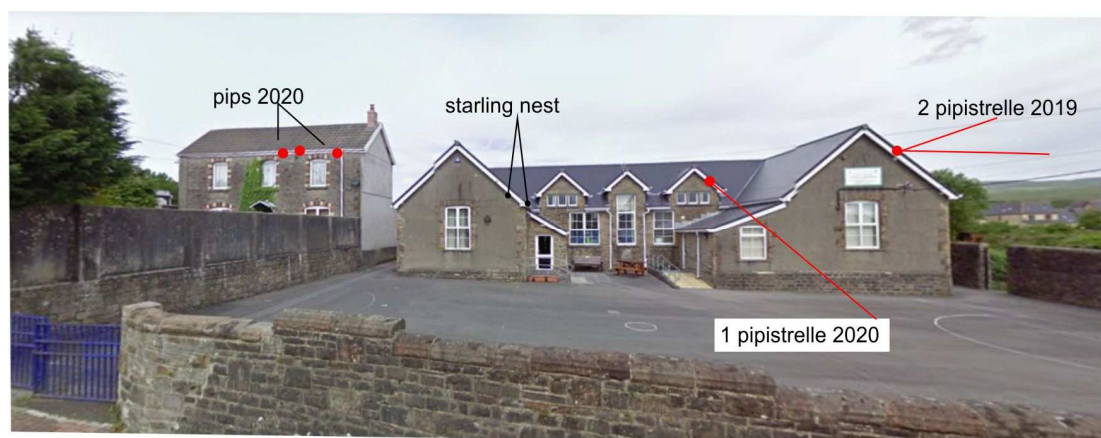
9.7 evidence of owl use: none

10 other species:

Starling *Sturnus vulgaris* nests were noted at a hole adjacent to a projecting purlin at the south-gable west-wing and at/under the roof edge of the west-wing inner (east) wall. (Several Starling nests were also clearly present at the to-west house roof.)

Overflying Swifts *A. apus* (n:3) were present throughout the first half of the May '20 survey visit.

11 summary:



11.1 There is no owl use of the buildings.

11.2 Common pipistrelle day-roost use of the roof of the school's east wing, by two animals, was seen at one of the two Sept '19 visits; single animal day-roosting was seen at a centre-east dormer at the May '20 visit.

2019 survey was conducted in “late-season”, when summer maternity colonies are likely to be dispersed, and when day-roosting by single animals is widespread. The observed/reported use was thought most likely to be “dispersal” roosting individuals (particularly, in the light of “no use” two weeks later).

The 2020 survey visit was made in May, when (pipistrelle) maternity colonies (multi-animal roosts) are well established: there is no such use of the school buildings. The single animal at the school in May (& the 3-4 animals at the to-west house) is assumed to be a male/non breeding animal; the observed/reported bat-travel, and timings, at both 2019 & 2020 visits, suggest the likelihood of multi-animal roosting fairly close to-east (at village housing/buildings?).

10.3 No bat-related constraint to the proposed extensions is identified.

The November '19 "proposed" site-development design drawings indicate that the new build works are physically distanced from any area of bat-use: these proposed works will have no impact on the observed bat use

- 10.4 Disturbance to nesting birds is (largely) prohibited by the Wildlife & Countryside Act, and the presence of nesting Starlings is a potential constraint to works during the birds' nesting cycle (eg. March-July). If it is necessary to undertake roof disturbing works during this period, it is recommended that access to the (identified) nest sites is closed during December-February to obviate nesting.
- 10.5 To answer its "section 6 EWA" responsibilities (7.2, above), the LPA is likely to require "biodiversity enhancement" at the project. This might most appropriately require the incorporation of bird nesting and/or bat roosting opportunity at/in the new build: the provision of compensatory nest opportunity for Starlings (eg. at the new-build long walls), and the incorporation of Swift nest boxes (eg. at gable soffits) is suggested. The LA's own "biodiversity team" can advise about this (and/or I'm happy to discuss possible measures with the project managers):

Rob Colley
May 2020