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**Salem Chapel, Bank Street, Rhos, Wrexham, LL14 1EN
(National Grid Reference: SJ 2937 4688)**

Inspection & Assessment in Relation to Bats & Breeding Birds

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Summary

A planning application in respect to the former Salem Chapel proposes the demolition of the existing structure followed by the construction of two residential dwellings. The Tyrer Partnership, therefore, undertook a daytime assessment of the building in relation to bats and breeding birds during September 2016.

A loft space is absent within the main chapel and the interior is open to the vaulted ceiling, which as a result the area is open and extremely light filled, subsequently it would not suit the basic requirements of loft dwelling bats, such as the Brown Long Eared bat (*Plecotus auritus*). Furthermore, despite the extending habitat offering potential, the immediate environs are considered as not being entirely suitable to meet the specific foraging requirements of this species, and where possible to ascertain (see constraint 5.2) no recent or historic evidence to suggest the presence of void dwelling bats is located during the inspection, however, their presence can not be definitively ruled out

Due to the construction of the church it is not possible to ascertain if roof lining such as bitumen underfelt is present beneath the roof slates; the presence of such lining can provide opportunities for crevice dwelling species, however, during the investigation historic or recent evidence to suggest the presence of this species was not observed.

A loft space is present above the church hall which is noted to be of dimensions that would offer potential for void dwelling bats however; no evidence was found to suggest their presence. Notwithstanding this, 2 historic droppings (deposited between 3 - 5 years) were identified and are indicative of the crevice dwelling Pipistrelle bat. Additionally, the bitumen underfelt beneath the roof slates increases potential for this species due to the factors discussed within paragraph 6.6. Further droppings may/may not be present within the loft however; this could not be fully established due to the health and safety constraints.

During the external inspection the decorative coping stones were found to be tight fitting to the front gable of the chapel as are the ridge tiles, notwithstanding this, a number of slates were noted as to being raised which would provide ingress for bats. The fascia boards to the east and west elevations were found to possess gaps that could be utilised by bats, however, they are not considered as being particularly favourable due to the large and generally exposed nature of the gap between the boards and external brickwork.

The mono pitched roof to the north of the chapel was found to offer a number of potential access opportunities for bats, notably, at eaves level, under roof slates and areas of lifted lead flashing whereby the structure meets the chapel.

Despite some of the extending habitat being suitable for barn owls no recent or historic signs of use were observed in relation to breeding/roosting and the building is less than ideal as there are no cavities or secluded places to nest. Signs of other nesting birds that rely upon built structures, e.g. Swallows (*Hirundo rustica*), House martin (*Delichon Urbica*) or Swift (*Apus apus*) was, on the day of the survey, absent.

It can be concluded that the main chapel does not offer potential for loft dwelling bats, and thus the proposed demolition of this section will not impact upon this species. However, the loft above the church hall appears to be of adequate dimensions that would meet the requirements of loft dwelling species, therefore, the proposed schedule of works may impact on this species should they be present.

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Ingress opportunities were located to the exterior of Salem Chapel and the adjoining church hall that could be used by crevice dwelling species such as *Pipistrellus*; historic evidence was present internally, however, further evidence of droppings could not be established due to the loft access constraint. Therefore, the combination of the roost potential combined with the quality of the immediate habitat will instigate recommendations for dusk/dawn surveys to be undertaken prior to demolition.

It is recommended that in order to establish if the identified features at the chapel and adjoining church hall are being used by bats dusk emergence or/and dawn surveys should be undertaken. The surveys will need to be conducted during the active season of bats i.e. between May – August as bats, particularly Pipistrelle bats often alternate between roosts and do not necessarily use one roost over their active season.

NB: Were more detailed bat surveys are recommended, following an initial investigation, then Local Authorities on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e. by conducting dusk/dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2010 (as amended). Therefore it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.

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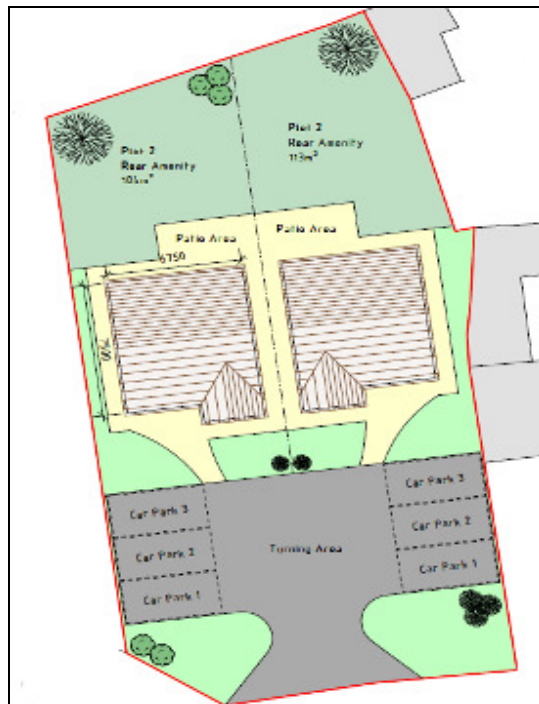
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1.0 Introduction & Reason for Surveys

- 1.1 As part of a proposed Planning Application at Salem Chapel, Rhos, Wrexham a daytime inspection was undertaken in relation to bats & breeding birds. Blueprint Architectural Services on behalf of the site owner, commissioned the inspection and report. Proposed plans for the site include the demolition of the existing structure followed by the construction of two residential dwellings. As part of the Local Authority's Planning Policies ecological surveys are generally required, prior to permission being granted, particularly where a protected species is or may be present that could be affected by the proposals for which the Application seeks consent.



Proposed site plan at Salem Chapel

- 1.2 The aim of the inspection was to initially ascertain if the building is of value to bats or breeding birds; if it was found to be suitable for bats, signs of use were located or the survey was inconclusive then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August. If bat/s or their roost/place of rest/shelter is subsequently affected by the work then a Natural Resources Wales Development Licence would be required to proceed with the development.
- 1.3 The optimum time to investigate buildings for evidence of a bat roost is May – August, however that is not to say they cannot be inspected and assessed outside of that time and frequently the results can be conclusive, which can save time and expense for Planning Applicants but it should be borne in mind that equally the inspection can be inconclusive.

2.0 Protected Species & Their Requirements

- 2.1 All British bats and their **roosts are afforded protection under the 1981 Wildlife & Countryside Act (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2010 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.
- 2.2 *Planning Policy Wales* (PPW) (2002) sets out the land use planning policies of the Welsh Government (WG). It is supplemented by a series of Technical Advice Notes (TANs). Procedural advice is given in National Assembly for Wales / Welsh Office circulars. PPW, Ministerial Interim Planning Policy Statements (MIPPS), the TANs and circulars together comprise national planning policy to which local planning authorities in Wales must have regard in the preparation of development plans.
- 2.3 Detailed advice on the preparation of unitary development plans (UDPs) is contained in *Unitary Development Plans Wales*, 2001. Detailed advice on the preparation of Local Development Plans (LDPs) under the Planning and Compulsory Purchase Act 2004 is given in *Local Development Plans Wales*, 2005.
- 2.4 Technical Advice Note (TAN 5 2009) provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. This guidance note should be read in conjunction with *Planning Policy Wales* (2002), in particular with Chapter 5 *Conserving and Improving the Natural Heritage and Coast* which sets out the Assembly Government's objectives for the natural heritage and the land use planning policies which support these.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:-

If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused

2.5 Use of Buildings by Bats

- a) Summer breeding roost.
- b) Hibernation.
- c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats & Species Regulations 2010 (Regulation 41) the term roost is not used but refers to “a breeding site or resting place of such an animal” and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

- 2.6 All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected under the Wildlife & Countryside Act 1981 (as amended). Birds listed on Schedule 1 e.g. barn owls are afforded a greater level of protection. Where nesting birds are present then work should be timed outside of the nesting season (March – August) so as to avoid disturbance.
- 2.7 Barn owls (*Tyto alba*) are a specially protected as a Schedule 1 Part 1 species under the 1981 Wildlife & Countryside Act (as amended), which gives protection to barn owls at all times. The main points in relation to nest sites are: “It is offence to intentionally or recklessly disturb them at or near a nest containing eggs or young. Intentionally damage or destroy a barn owl nest whilst in use or being prepared for use. It is also an offence to intentionally or recklessly disturb dependant young of a wild barn owl.”
- 2.8 Within buildings adaption to artificial nest boxes occurs given that suitable habitat exists within feeding range and linear features such as hedgerow, ditches or watercourses are present as links to other areas, which allows the expansion of young barn owls looking for territories. The boxes can serve both as a breeding site and as a place for general roosting or shelter.
- 2.9 Barn owls are essentially a bird of the open countryside, particularly where rough grassland exists, which supports their main prey by way of small mammals and successful breeding is heavily dependant upon 1) a secluded nest site and 2) a plentiful supply of prey being available. It is possible that loss of an occupied nest site can have an adverse affect even if other alternative sites were made available.

Thus where possible it is always preferable to retain an occupied site and not take the approach of providing an alternative in a different location.

3.0 Bat Species in North Wales

- 3.1 Up to eleven bat species have been recorded in North Wales, most of which use built structures, notably occupied residential properties, for roosting. The most frequently encountered species is the Pipistrelle bat (*Pipistrellus*) and its abundant status in North Wales reflected throughout the UK.
- 3.2 Barn owls are regularly recorded within North Wales where an agricultural matrix that includes suitable bank sides of drainage ditches or rough pasture that will provide habitat for their main prey i.e. small mammals; however they are constantly under threat from loss of habitat and nest sites, which is a situation that is mirrored throughout most of the UK.

4.0 Survey Methodology

4.1 BCT Survey Good Practice Survey Guidelines state:

The guidance should be interpreted and adapted on a case-by-case basis, according to the expert judgement of those involved. There is no substitute for knowledge and experience in survey planning, methodology and interpretation of findings, and these guidelines are intended to support these. Where examples are given they are descriptive rather than prescriptive.

4.2 The daytime survey was conducted on 12th September 2016 when the building that will be demolished was inspected for potential places that may be of value to bats and if evidence of use was present. A loft space is absent within the main chapel, however, is present within the church hall, an adjoining section to the rear of the chapel which was inspected from ladder level for evidence of use which mainly includes droppings or prey items; the interior was also considered in terms of its suitability for roosting bats and all external elevations were investigated from ground floor level, with the aid of close focussing binoculars, for places that are frequently used by bats as roosts or as access into roost chambers.

4.2 The survey was conducted by Mrs K Wilding, a highly experienced bat surveyor whom holds a Natural England Class 2 bat license (2015-14227-CLS), but more relevant to the site location is an accredited agent on a Natural Resources Wales bat license (Mr S Irwin: 73156: OTH: CSAB: 2014); the inspection was undertaken at a time when bats are at the end of their breeding season which falls within a sub optimum time to undertake such surveys.

4.3 The results, conclusions and recommendations are based on a number of factors i.e.

Practical experience of surveyor
Knowledge of bat species relevant to the site location and geographical range
Nature of the immediate and surrounding habitat in relation to foraging opportunities
Condition of the building
Presence/absence of a loft space
Presence/absence of roost potential
Value of roost potential – if present

4.4 The inspection for birds was conducted in tandem with the investigation for bats; external elevations and the interior of the buildings were inspected for signs indicative of nesting birds such as nests, or accumulations of nesting materials and droppings. The overall potential of the site including the surrounding habitat to meet the basic requirements of nesting birds was also assessed during the site visit.

5.0 Constraints

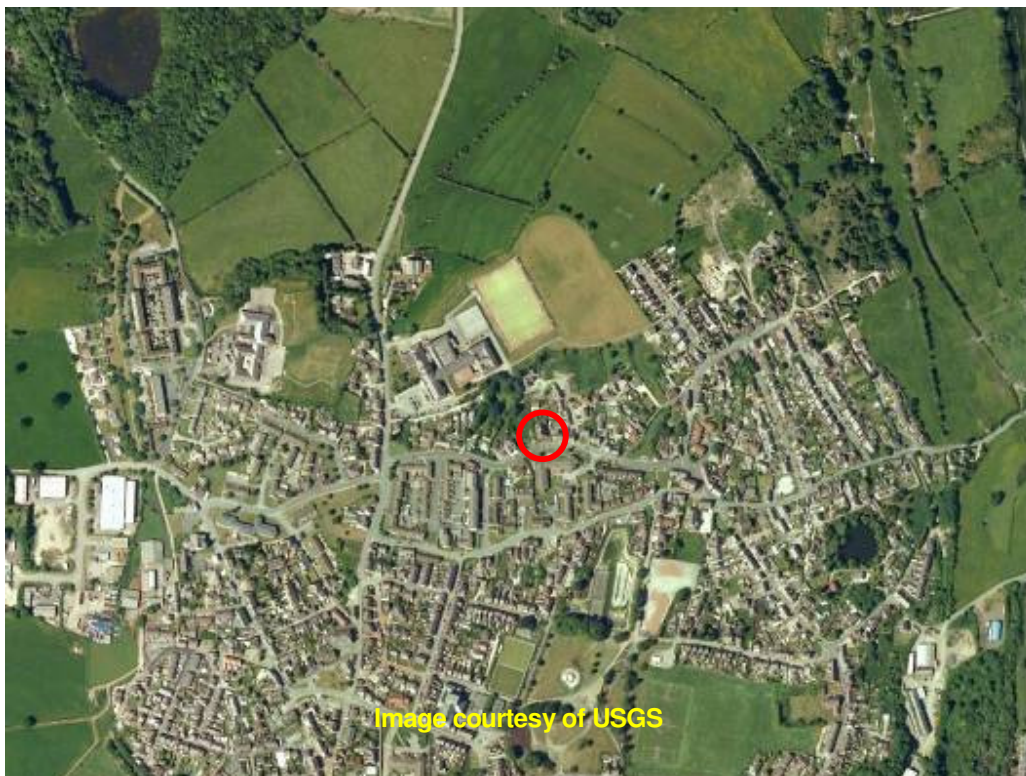
5.1 The daytime survey was conducted at the end of the breeding season, when bats are starting to disperse from maternity colonies and will soon be entering a transitional period prior to the hibernation season.

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- 5.2 Due to health and safety reasons, the loft space above the church hall could not be accessed and thus an assessment could only be made from ladder level. All external features at the building could be assessed and consequently, a full appraisal was achievable in relation to assessing the level of bat roost potential that may exist.
- 5.2 Taking into consideration the above it is deemed that there were significant survey constraints, however, they would not prevent the gathering of information on which to base conclusions and recommendations.

6.0 Daytime Results

- 6.1 Salem Chapel which is the subject of the current planning application is located in an urban environment approximately 0.30 kilometres north of Rhosllanerchrugog village centre. The immediate habitat comprises of a combination of residential dwellings with associated garden areas incorporating ornamental trees/shrubs/bushes within the vicinity; furthermore, a modest pocket of woodland is observed 26 metres north west.
- 6.2 Notable habitats within the extending landscape include extensive and established woodland incorporating a large water body within Llwyneinion woods, several areas of recreational green space with boundary tree lines, and numerous wooded features. All of the aforementioned of which feature highly favourable habitat for the species for which the survey was undertaken, i.e. bats and breeding birds. Where such habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available.



Location of Salem Chapel within the immediate landscape

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- 6.3 Open pasture and agricultural land within the wider landscape provides a high level of favourable hunting grounds for barn owls, and where this landscape is present close to buildings the percentage use of those buildings, by barn owls increases given that roost/nesting opportunities are available and vice versa.
- 6.4 The surveyed dwelling is sited on Bank Street, Rhos and faces a number of residential dwellings; the chapel resides within its own grounds and comprises of a red brick construction with slate pitched roof, an adjoining church hall is located to the north aspect of the building which is of the same construction incorporating a mono pitched slate roof. The formation of the chapel dates to 1894 and is architecturally constructed in the Arts & Crafts style, a decorative and fine art that began and flourished in Britain between 1880 and 1910. It is understood that services have not been held for a period of between 1.5 – 2 years, and thus as a consequence the building requires modernisation and remedial work if the chapel was to be restored for any modern day purposes in line with today's energy efficient standards.
- 6.5 During the internal investigation a loft space is absent with the main chapel and the interior is open to the vaulted ceiling; internally, the area is open and extremely light filled, thus, as a result would not suit the basic requirements of loft dwelling bats, such as the Brown Long Eared bat (*Plecotus auritus*) as this is a species that favours a large, darkened and unrestricted loft spaces that allows free flight, with consistent warm and relatively stable temperatures. Furthermore, despite the extending habitat offering potential, the immediate environs are considered as not being entirely suitable to meet the specific foraging requirements of this species, and where possible to ascertain (see constraint 5.2) no recent or historic evidence to suggest the presence of void dwelling bats is located during the inspection, however, their presence can not be definitively ruled out.
- 6.6 Due to the construction of the church incorporating the vaulted ceiling it is not possible to ascertain if roof lining such as bitumen underfelt is present beneath the roof slates; the presence of such lining can provide opportunities for crevice dwelling species, whereby they often roost between tiles/slates and roofing materials, provided external access exists. The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony. During the investigation historic or recent evidence to suggest the presence of this species was not located.
- 6.7 During the investigation from ladder level a loft space above the church hall was found to be to approximate dimension of 11 metres long x 5.5 metres wide x 2 metres (at highest point), which therefore would offer potential for void dwelling bats due to the reasons outlined within section 6.5, however, no obvious evidence was found to suggest their presence. Notwithstanding this, 2 historic droppings (deposited between 3 - 5 years) were identified and are indicative of the crevice dwelling Pipistrelle bat. Additionally, the bitumen underfelt beneath the roof slates increases potential for this species due to the factors discussed within paragraph 6.6. Further droppings may/may not be present within the loft however; this could not be fully established due to the health and safety constraints.

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- 6.8 During the external inspection the decorative coping stones were found to be tight fitting to the front gable of the chapel as are the ridge tiles; the majority of the slate roof is further noted to be generally intact, notwithstanding this, a number of raised slates are observed at approximately 3 courses down from the ridge and 3 courses above the gutter, which would provide ingress for bats. The fascia boards to the east and west elevations were found to possess gaps that could be utilised by bats, however, they are not considered as being particularly favourable due to the large and generally exposed nature of the gap between the boards and external brickwork.
- 6.9 The mono pitched roof to the north of the chapel was found to offer a number of potential access opportunities for bats, notably, at eaves level, under roof slates and areas of lifted lead flashing whereby the structure meets the chapel.

Daytime Results - Birds

- 6.10 Despite some of the extending habitat being suitable for barn owls no recent or historic signs of use were observed in relation to breeding/roosting and the building is less than ideal as there are no cavities or secluded places to nest. Signs of other nesting birds that rely upon built structures, e.g. Swallows (*Hirundo rustica*), House martin (*Delichon Urbica*) or Swift (*Apus apus*) was, on the day of the survey, absent.
- 6.11 The site incorporates general shrub/vegetation within the site boundaries that would offer breeding potential for other garden/woodland bird species.

7.0 Conclusions

- 7.1 From the survey results it can be concluded that the main chapel does not offer potential for loft dwelling bats, and thus the proposed demolition of this section will not impact upon this species. Notwithstanding the aforementioned, the loft above the church hall appears to be of adequate dimensions that would meet the requirements of loft dwelling species, and the immediate / surrounding habitat offers some, although not entirely suitable potential for this species specific foraging requirements, therefore, the proposed schedule of works may impact on this species should they be present.
- 7.2 Ingress opportunities were located to the exterior of Salem Chapel and the adjoining church hall that could be used by crevice dwelling species such as the *Pipistrellus*; historic evidence was present internally, however, the presence of further droppings could not be established due to the loft access constraint. The habitat immediate to the building is more than capable of meeting their foraging requirements; roost opportunities identified on the building are initially categorised as offering moderate potential, thus the combination of the roost potential combined with the quality of the immediate habitat will instigate recommendations for dusk/dawn surveys to be undertaken prior to demolition.

8.0 Daytime Survey Recommendations

- 8.1 It is recommended that in order to establish if the identified features at the chapel and adjoining church hall are being used by bats dusk emergence or/and dawn surveys should be undertaken. The surveys will need to be conducted during the active season of bats i.e. between May – August as bats, particularly Pipistrelle bats often alternate between roosts and do not necessarily use one roost over their active season.

Two dusk surveys are generally accepted as being an appropriate level of survey effort where moderate potential has been identified and roosting features identified are localised but may be increased subject to the results of those surveys. The two surveys need to be spaced between the months of May-August (see below for extract from Bat Conservation Bat Surveys: Good Practice Guidelines).

Bat Conservation Trust

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

- 8.2 It should be noted that where bat/s or their roost/place of rest/shelter will be affected by the proposed works, then to allow work at the site to legally commence, an application for Natural Resources Wales Development Licence will be required. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation. It should also be noted that before a licence can be applied for all Planning issues including Consent and any pre-commencement Planning Conditions relative to bats should be resolved.
- 8.3 Natural Resources Wales provides information and guidance about licensing, however, it is not their role to provide mitigation which should be undertaken by a suitably experience bat ecologist.
- 8.4 There are no current implications in relation to breeding birds that would prevent the proposed scheme at the site taking place and the proposals would not result in the loss of a site that is used by barn owls for breeding or roosting purposes.
- 8.5 It is recommended that if any of the vegetation or shrub is to be removed during the breeding season of birds (March - August) of any year, then a further site visit, by an ecologist, should be conducted to establish if nesting birds are present. If nesting birds were present during a subsequent visit the work will need to be re-scheduled so as to avoid potential damage to an occupied nest and subsequently committing an offence.

NB: *Were more detailed bat surveys are recommended, following an initial investigation, then Local Authorities on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e. by conducting dusk/dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2010 (as amended). Therefore it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.*

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Appendix I – Site Photographs



Salem Chapel proposed for demolition – gaps under roof slates



Light filled interior of chapel



Loft space above church hall to the north



Gaps at lead flashing, under eaves and between fascia boards & external brickwork