



Kronospan, Chirk

Building Demolition Preliminary Bat Survey

28:11:2012



Above: The two garages proposed for demolition

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Client: Kronospan.

Architect: Lovelock Mitchell, 3 Stanley Street, Chester. CH1 2LS

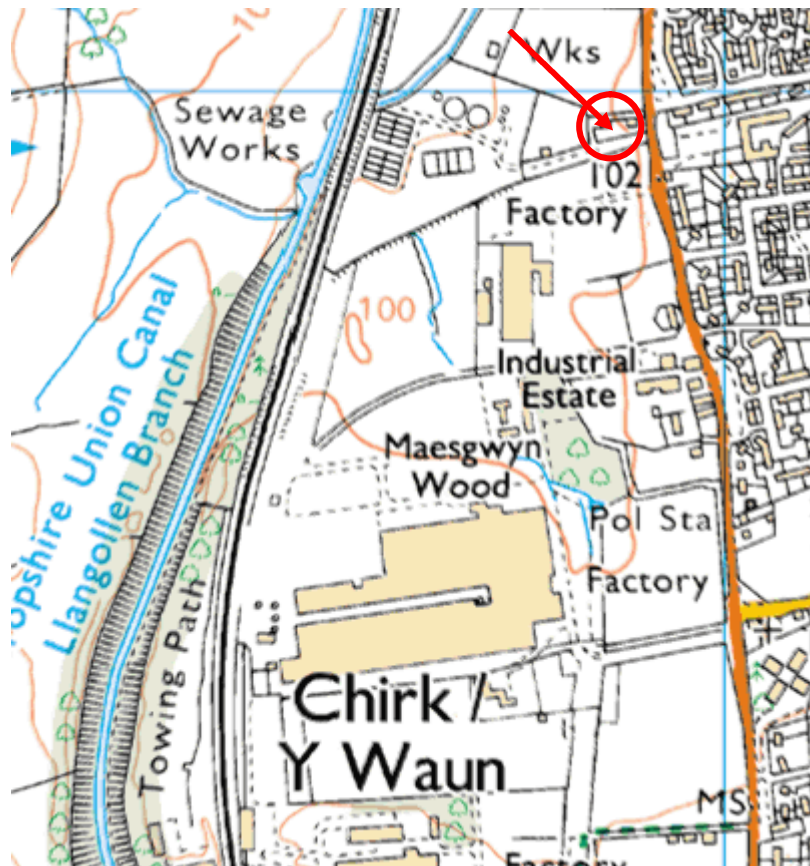
Planning Authority: Wrexham Borough Council.

Grid Reference: SJ 28870 38974

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Figure 1: Location of Survey Site



BUILDING DEMOLITION PRELIMINARY BAT SURVEY

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1 Introduction.

The Chris Hall Ltd Mammal Consultancy was commissioned by Lovelock Mitchell, on behalf of client Kronospan, to carry out a preliminary bat survey of two former garages on the Kronospan site at Chirk. It is intended to demolish the two building to make way for the construction of a new training facility and a bat survey was required by Wrexham Borough Council as part of the planning process.

The buildings are located at Grid Reference SJ 28870 38974

2 Methodology

2.1 Bats

A building survey was carried out on 28th November 2012 by licensed bat worker Chris Hall. All roof spaces, crevices and other likely roosting areas were methodically searched for signs of bat occupation such as droppings and feeding remains as well as for the animals themselves. This included both the interior and exterior of the buildings. Due to the timing of the survey, no emergence work was carried out but the buildings were assessed for their potential as bat roosts and CCW consulted with regards to protected sites and roosts in the locality.

Although unaffected by the proposals, a residential property on the site was also assessed for its potential as a bat roost.

2.2 Other Protected Species

In accordance with the guidelines from the Institute of Ecology & Environmental Management, (IEEM), the presence of any other protected species was also recorded.

3 Survey Limitations.

Bats are a difficult group to survey for and it is usually signs of their activity rather than actual presence that indicates the existence of a bat roost. A daytime survey of a building for bats can reveal signs of bats should they have been using the building as a roost in recent months. 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. On a building exterior, it is likely that no signs of previous bat occupation will remain for very long. Therefore, an assessment of the 'potential' of a building as a roost for bats can be important in determining the level of further survey work required in order to confirm presence or absence of bats and the status of any roosts that may be present.

4. Site Description.

4.1 The Buildings

There are two adjoining building son the site proposed for demolition.

The northern-most building is a single garage constructed of concrete blocks with a flat, felted roof. The exterior is 'pebble-dashed' leaving no crevices in the masonry and

is sealed at the eaves leaving no potential bat access points under the roof covering. On the interior, light levels are very high due to the permanently propped open door and a large window in the north elevation. There are no potential internal roosting crevices and no separate roof void.



The north elevation with window and 'pebble-dashing'

The southern-most building is divided internally into two sections. The western section is a stone structure on which the exterior pointing is in good condition leaving no potential roosting crevices and the eastern section has a 'pebble-dashed' exterior, again leaving no crevices. The roof is clad with corrugated metal sheeting. There is no apparent bat access to the interior of the building in which there are also no potential roosting crevices



The southern building with the corrugated metal roof

The Residential Property

The residential property which will be unaffected by the proposals is a two-storey structure with a slate roof. The roof is in very good condition with no potential access gaps under the slates. The exterior of the building is a combination of effectively pointed stone and pebble-dashing leaving no crevices in the masonry. There are some minor gaps behind the soffits on the northern and eastern elevations.



Above: The residential property.

Habitat

The habitat consists of the village of Chirk to the immediate east and the Kronospan plant to the south. To the north and west the habitat is very rural comprising grazed pasture segregated by a complex network of hedges and tree lines which give good connectivity to areas of both broadleaved and coniferous woodland within the parkland surrounding Chirk Castle. The Shropshire Union Canal also lies in close proximity to the west which provides potential bat foraging habitat.

5 Results

5.1 Bats

There was no evidence of the presence of bats in any part of either of the buildings.

Consultation with Countryside Council for Wales (CCW) revealed the presence of the Chirk Castle & Parkland Site of Special Scientific Interest (SSSI), the closest boundary of which lies less than 1km to the west. The lesser horseshoe bat; (*Rhinolophus hipposideros*) is a 'feature' of this site designation.

5.2 Other Protected Species

There was no evidence of the presence of any other protected species.

6 Habitat Evaluation

The buildings proposed for demolition have very limited potential as day-time roosts for bats. There are no potential roosting crevices on either building and no potential bat access to the interior of the southern building. This building also has a corrugated metal roof which causes rapid and extreme temperature fluctuations which are generally avoided by bats. While there is easy bat access to the interior of the northern building, internal light levels are very high and there are no places of concealment within the building.

This building does however have the potential to be used as a night roost by lesser horseshoe bats as internal light levels will not be relevant during the hours of darkness.

7 Conclusion

7.1 Bats

It is concluded from the assessment of the buildings proposed for demolition as day-time bat roosts, that there is virtually no potential for bats to be present within the scope of the proposals.

It is however concluded that the northern building has the potential to be used as a night roost by lesser horseshoe bats. Although no evidence of bats was found during the survey, it is recommended that due to the close proximity of the SSSI of which lesser horseshoe bats are a 'feature', that a precautionary approach is taken. Research suggests that night roosts are potentially very important for the lesser horseshoe bat as they provide resting places allowing the bats to forage further afield and access foraging areas that would otherwise be inaccessible. (Knight & Jones 2009).

It is also concluded that the residential property has minimal potential as a bat roost and that the proposals will have no impact on any roosts that may be present.

7.2 Other Protected Species

It is concluded that there are no other protected species present within the scope of the proposed development.

8 Mitigation & Recommendations

8.1 Bats

The following measures are recommended that to ensure that there is no 'net loss' of potential night roosting facilities for lesser horseshoe bats on the site.

- A new permanent roost should be constructed for the lesser horseshoe bats.
- This roost should be adjacent to the boundary hedge on the north-west corner of the site, (See Figure 2 below).
- The hedge should be retained to provide continued habitat connectivity.
- The dimensions should be minimum of 2 metres in length, 1 metre in width and 2.5 metres in height to the apex of the ridge.
- As this is to be a permanent structure it should be constructed either of stone or rendered block-work.
- The roost should be roofed with slate and if roofing felt is to be used this should be the traditional 1F mineral felt. (BS5747). The new breathable 'Tyvek' products will be avoided.

- The roof will be supported with 'rough-sawn' timbers as lesser horseshoe bats hang from the timbers and need to be able to grip.
- A bat entrance will be provided on the western gable end as this location will be unaffected by 'light spill' from the development and street lighting from the B5070.
- As lesser horseshoe bats need to be able to fly through the entrance this will be 300mm in width and 200mm in depth.
- A cowl should be fitted to the bat access to both reduce light levels and discourage access by owls. (See Figure 3 for cowl design).
- The bat access should be fitted just below eaves level.
- A door should also be provided for human access to allow for future monitoring.
- This door should be kept locked and the building not used for any other purpose.
- The new roost should be completed prior to any demolition taking place.
- All of the above should be clearly shown on the architect's drawings and submitted as part of the planning application.

Figure 2: Location of proposed bat roost.

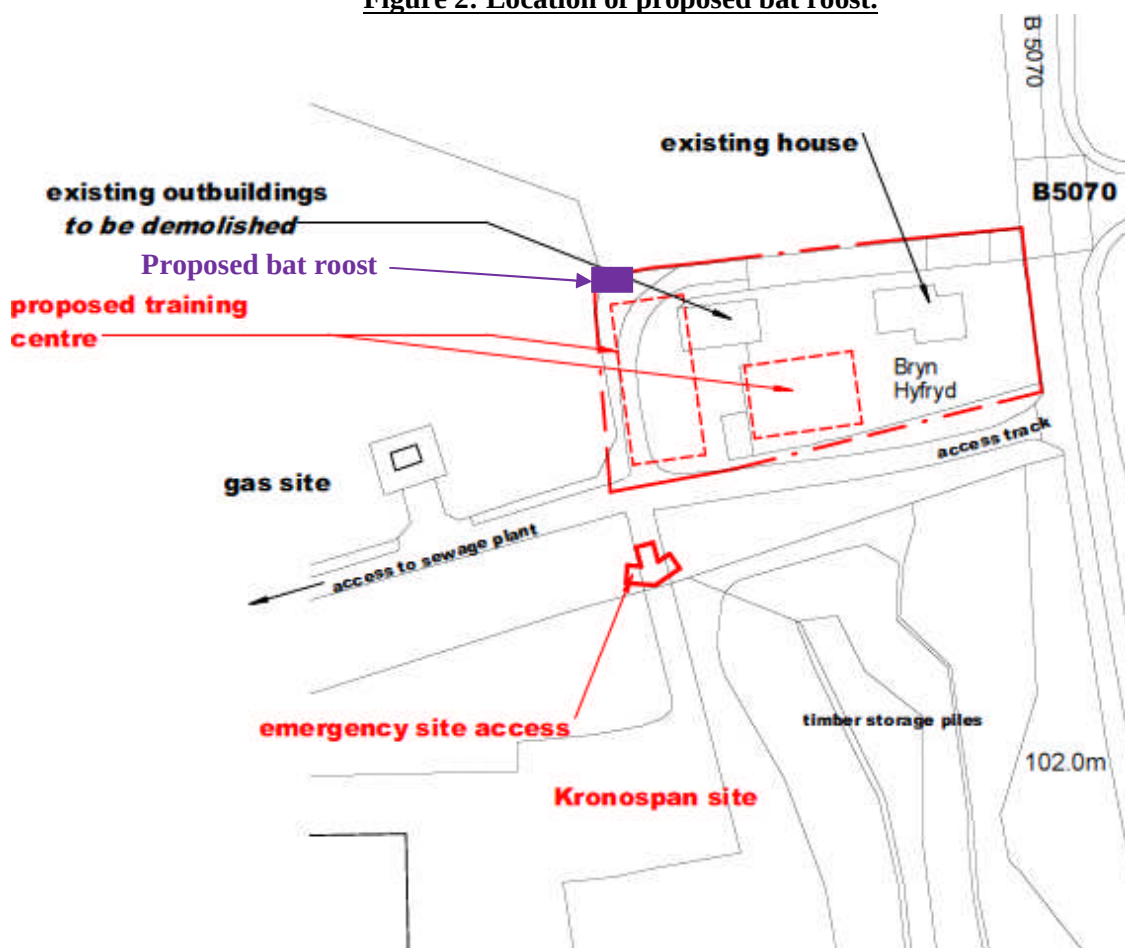
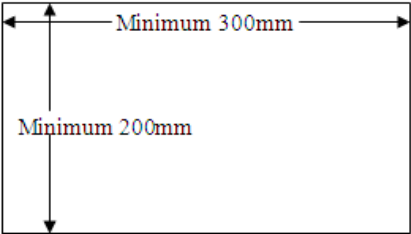
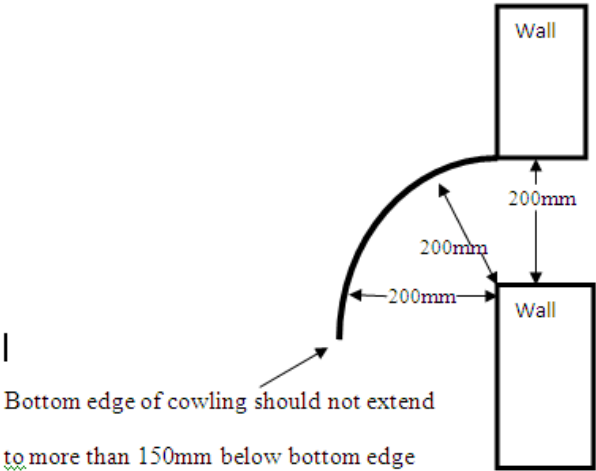


Figure 3: Lesser Horseshoe Access Cowl Design

Internal View

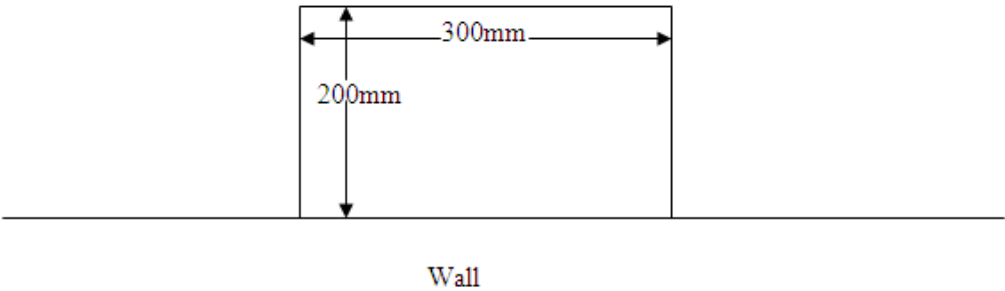


External Side Elevation



Bottom edge of cowling should not extend to more than 150mm below bottom edge of access hole through wall.

External View of Underside of Cowling Access





Above: Lesser horseshoe bat access cowling

8.2 Other Protected Species

No mitigation measures for any other protected species are required.

9 **Legal Implications**

9.1 Bats

General Implications

Bats are protected under UK law by the Wildlife and Countryside Act 1981 (as amended) and also under European law by the Habitat and Species Regulations 2010. Under these laws it is an offence to deliberately kill or injure a bat, to disturb a bat or to damage, destroy or block access to a roost. Bat roosts are protected under these laws whether the animals are present at the time of survey or not. Under both laws the Welsh Government are empowered to issue licences to carry out work to bat roosts for reasons of overriding public interest. It is not illegal to tend a disabled bat pending recovery.

Specific Implications

Based on the results of the survey combined with an assessment of the potential of the buildings proposed for demolition, there are no legal implications with regards to the presence of bats and the proposed works.

It is however recommended that the precautionary approach recommended in this report is adhered to in order to avoid any potential impact on the lesser horseshoe bat as a feature of the Chirk Castle & Parkland SSSI.

10 **References**

Knight, I. & Jones, G. (2009) Importance of night roosts for bat conservation: roosting behaviour of the lesser horseshoe bat, *Rhinolophus hipposideros*. Endangered Species Research. Vol 8: 79- 86.