

HAWKESWOOD ECOLOGY

Specialists in Ecological Survey and Assessment

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TREE CLIMBING BAT ROOST ASSESSMENT,

LAND AT MEADOW ROAD, NEATH

ON BEHALF OF

JONES BROTHERS AND TAI TARIAN LTD

February 2021

Ref: HE/26/2020/Climb – Issue 1

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We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work, prevailing site conditions and the degree of manpower and resources allocated to the project.

All habitat and protected species surveys present a ‘snapshot’ of conditions existing and species present, or considered having potential to be present, at the time of survey. Many species are mobile and distributions can vary across time. Results and findings presented in this report should be considered with these factors in mind.

Protected species surveys are recognised as having a ‘shelf life’ of two years maximum. Surveys older than this are unlikely to be accepted by a Local Planning Authority or Natural Resources Wales as viable documentation.

CONTENTS

Summary

1. Introduction
2. Survey Team Experience
3. Methodology and Constraints
4. Field Survey Findings
5. Discussion and Impact Assessment
6. Relevant Legislation and Policies
7. Recommendations
8. Conclusions
9. Bibliography

FIGURES

Figure 1: Approximate locations of Trees assessed in PRA

Figure 2: Suitable bat boxes for trees

APPENDICES

Appendix 1 Photographs

SUMMARY

Following an earlier ground based Preliminary Bat Roost Assessment carried out by Hawkeswood Ecology on land at Meadow Road, Neath, a tree climbing assessment of trees was undertaken to properly assess the potential of the mature trees to support roosting bats and to guide the need for further survey in the activity season.

In all, twenty four trees were climbed or further assessed if considered not safe to climb and of these a number require further survey in compliance with the Bat Conservation Trust Guidelines for good practice survey, 2016.

Of the trees earmarked for the enablement of the development two were considered to be of high potential for supporting roosting bats when assessed against the current guidelines and two considered to be of moderate potential. Two other trees are considered of moderate potential but are to be retained within the development scheme.

Of the remaining trees, six were considered to be of low potential to support roosting bats and twelve considered to have negligible potential to support roosting bats.

There are ongoing bat activity surveys being undertaken across the Site and the current tree climbing survey has identified the need for further climbing and observation surveys on some of the trees affected by the development. In general, mature trees are being retained where possible and development design will ensure continued commuting and foraging lines. There is potential for bat roosts to be affected by the development however, the level of survey will identify any such roosts and where necessary licenses will be applied for before any works take place affecting them. The licence applications will offer appropriate compensation as necessary.

It is considered that the trees that are affected by the development proposals can be protected until completion of survey and all are of a short life expectancy that the presence of bat roosts would not lead to the Favourable Conservation Status of the species being negatively impacted if appropriate compensation is provided.

1 INTRODUCTION

- 1.1 Hawkeswood Ecology was instructed by Jones Brothers and Tai Tarian Ltd to carry out a Tree climbing bat roost surveys on mature trees on land at Meadow Road, Neath (approximate central Grid Reference SS 750 961) following the findings of ground based Preliminary Bat Roost Assessment (PRA) upon them. It is proposed to develop the Site for residential purposes with an access formed off Meadow Road.
- 1.2 The climbing survey assessed the potential of twenty four trees in all and considered them against the standards given in the Bat Conservation Trust Good Practice Guidelines for Professional Ecologists (2016) which is the current adopted best practice guidance.
- 1.3 The objectives of the survey are:
 - To confirm and build upon the results of the ground based PRA undertaken on Site in September 2020.
- 1.4 The Tree Climbing PRA was carried out on 16th January 2021.

2 SURVEYOR EXPERIENCE

- 2.1 The surveyors undertaking the climbing surveys are Aaron Davies and Matt Dowling. The report author is Eric Hawkeswood. Aaron and Matt are experienced and licensed tree climbing bat ecologists with a wealth of experience in all types of bat work. Aaron is heavily involved in voluntary bat work with the Glamorgan Bat Group. Aaron's Natural Resources Wales licence number is S085246-1, Matts is S087707-1. Eric holds Natural Resources Wales and Natural England scientific and conservation licenses for bats and dormice. He has been a professional in the nature conservation field for thirty two years formerly working as Reserves Manager and Conservation Officer at Gwent Wildlife Trust and Woodland Manager for the Ruperra Conservation Trust. Eric has worked as an Ecological Consultant as joint proprietor of Hawkeswood Ecology since 2001.

3 METHODOLOGY AND CONSTRAINTS

- 3.1 As with the ground based survey a visual inspection of the tree was made. The climbers were able to access areas not visible from the ground including the upper side of branches and also to check in dense ivy for any potential roost features (PRF's)
- 3.2 The trees were identified as with the original ground survey reported in the report of December 2020, '*Preliminary Ecological Appraisal/Tree Bat Roost Assessment, Land at Meadow Road, Neath. Hawkeswood Ecology – Issue 3*' which should be read in conjunction with this report.
- 3.3 The categorisation of the trees was given in accordance with the published and adopted Bat Conservation Trust guidelines (2016), see Table 1 below.

Table 1: Risk Assessment features for bat-roost potential during tree inspection (After *Bat Surveys for Professional Ecologists- Good Practice Guidelines* –Bat Conservation Trust 2016):

Suitability	Roosting	Commuting/Foraging Habitats
Negligible potential	No features likely to be used by roosting bats.	Negligible habitat Features likely to be used by commuting or foraging bats.
Low	Trees with no obvious PRF's to support bats although the size and age may result in limited features that may support bats or only limited features noted in inspection	Suitable habitat but isolated, may be used by small numbers of bats; i.e. isolated tree, small patch of scrub.
Medium	A Tree with one or more PRF's 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.	Habitat connected to the wider landscape such as trees, water, grassland or scrub.
High	A tree with one or more PRF's 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 size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat connected to the wider landscape likely to be used regularly by commuting and foraging bats. A site near to known roosts.

Notes: PRF's - Potential Roost Features

- 3.4 Evidence such as bat droppings (faeces) was looked for in holes where possible and at the base of the trees, and any holes also examined for urine or fur staining typically found at the access points.

Constraints

- 3.5 T14b, a beech, proved unsafe to climb; further ground assessments were made which in this case confirmed the trees to be of high potential to support roosting bats.

4 FIELD SURVEY FINDINGS

- 4.1 The findings are given in Table 1 below. The results show the category of the tree following survey, i.e. negligible, low, medium or high, based upon the absence of Potential Roost Features (PRF's) or the number of PRF's present. Column 1 identifies the trees to specific photographs showing the trees and associated PRF's, these are given in Appendix 1.
- 4.2 The tree numbers used relate to the ground PRA undertaken in September 2020 with two exceptions. T14a relates to an ash that was not investigated during the ground survey and is to be retained. T20 is a sycamore that is within the horse chestnuts in the group T19 and was previously not recorded as a separate species.
- 4.3 Of 24 trees assessed, two were found to be of high potential to support roosting bats; this means that they show one or more PRF's that could clearly be used by a number of bats for a long period of time and may include high status roosts (i.e. maternity). Four trees were considered to be of moderate potential to support roosting bats; these are trees showing one or more PRF's that could be used by bats but unlikely to be used for high status roosts. A further six trees are considered to be of low potential to support roosting bats; these are roosts with no obvious PRF's visible or have only very limited roosting potential. The remaining trees were considered to be of negligible potential to support roosting bats showing no PRF's suitable for them.
- 4.4 Of the trees considered to be of high potential, T20, a sycamore, is to be removed to enable the development to proceed. Of the six trees of moderate potential, T19a and 19c are to be removed. Of the trees categorised as being of low potential, three, T12a and 12b and 19d are to be removed.
- 4.5 The climbing survey largely reflected the ground based inspection but did allow the categorisation to be more finely defined.

Tree Climbing Bat Roost Assessment, Land at Meadow Road, Neath.
Hawkeswood Ecology – February 2021

Photo ID*	Species	Ground assessment date	Ground Assessment Grade	Survey Type	Overall Tree Grade	Further Survey Required	Winter Survey	Climber	Groundsman	General Comments
T1	Sycamore	12/2020	Potential	Climb	Low	No	16/01/2021	MMD	AD	Pre-works inspection if directly impacted
T2	Sycamore	12/2020	Potential	Climb	Low	No	16/01/2021	AD	MMD	Several ephemeral bark plates - soft fell if directly affected
T3	Sycamore	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	No PRFs identified
T4	Sycamore	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	No PRFs identified
T5	Sycamore	12/2020	Potential	Climb	Negligible	No	16/01/2021	MMD	AD	No PRFs identified
T6	Sycamore	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	Ivy cover not dense enough to support roosting bats
T7	Sycamore	12/2020	Potential	Climb	Negligible	No	16/01/2021	MMD	AD	Ivy cover not dense enough to support roosting bats
T8	Sycamore	12/2020	Potential	Climb	Low	No	16/01/2021	MMD	AD	Pre-works inspection if directly impacted
T9	Sycamore	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	No PRFs identified
T10	Sycamore	12/2020	Potential	Climb	Moderate	Yes	16/01/2021	AD	MMD	Recommend further internal inspections throughout active season and pre-work inspection if directly affected
T11	Common	12/2020	Potential	Climb	Moderate	Yes	16/01/2021	MMD	AD	Recommend further

Tree Climbing Bat Roost Assessment, Land at Meadow Road, Neath.
Hawkeswood Ecology – February 2021

	oak									internal inspections throughout active season and pre-work inspection if directly affected
T12a	Ash	12/2020	Potential	Climb	Low	No	16/01/2021	AD	MMD	Pre-works inspection if directly impacted
T12b	Ash	12/2020	Potential	Climb	Low	No	16/01/2021	MMD	AD	Pre-works inspection if directly impacted
T12c	Ash	12/2020	Potential	Climb	Negligible	No	16/01/2021	MMD	AD	No PRFs identified
T12d	Ash	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	Ivy not considered dense enough to form PRF
T14a	Ash	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	Features not considered suitable enough to support bats
T14b	Beech	12/2020	Potential	Dusk/dawn	High	Yes	16/01/2021	AD	MMD	Due to level of decay in stem - unsafe to climb, recommend dusk/dawn with IR camera due to surrounding canopy cover
T18	Ash	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	No PRFs identified
T19a	Horse chestnut	12/2020	Potential	Climb	Moderate	Yes	16/01/2021	MMD	AD	recommend further internal inspections throughout active season and pre-work inspection if directly

Tree Climbing Bat Roost Assessment, Land at Meadow Road, Neath.
Hawkeswood Ecology – February 2021

										affected
T19b	Horse chestnut	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	No PRFs identified
T19c	Horse chestnut	12/2020	Potential	Climb	Moderate	Yes	16/01/2021	AD	MMD	recommend further internal inspections throughout active season and pre-work inspection if directly affected
T19d	Horse chestnut	12/2020	Potential	Climb	Low	No	16/01/2021	AD	MMMD	Pre-works inspection if directly impacted
T19e	Horse chestnut	12/2020	Potential	Climb	Negligible	No	16/01/2021	AD	MMD	No PRFs identified
T20	Sycamore	12/2020	Potential	Climb	High	Yes	16/01/2021	AD	MMD	Recommend further internal inspections throughout active season and pre-work inspection if directly impacted

* - The approximate locations of the trees are shown in Figure 1.

AD – Aaron Davies

MMD - Matt Dowling

5 DISCUSSION AND IMPACT ASSESSMENT

- 5.1 The tree climbing survey was undertaken to confirm or adjust the findings of a ground based survey undertaken in September 2020 and to make recommendations in relation to further survey where necessary. The survey confirmed two trees as being of high potential to support roosting bats with a further four being of moderate potential. All of these trees require further survey prior to any works affecting them.
- 5.2 The trees in Group T19 and T14b and T20 are to be removed to enable the development to proceed. These trees are also recommended for removal in the arboricultural assessment carried out by ArbTS due to poor condition which the bat climbing survey clearly reflects. The number of trees planned for removal across the Site is limited, with retention of the majority of established mature trees, including the common oak identified as being of high potential at T11.
- 5.3 Recommendations for further survey/actions are given in the general comments column of Table 1. Further climbing survey for those trees affected by the development should be undertaken apart for T14 which is considered unsafe and here observation surveys are required. The recommendations should be used as guidance for removing trees with Low potential; some of these require a pre felling inspection, others just ‘soft felling’ where the tree is left whole for 24 hours following felling before logging.
- 5.4 In terms of the development process, it is recommended that the trees identified for further survey should be protected from any development works during the course of the survey period. Both these surveys and the continuing activity surveys (programmed to the summer 2021) should proceed as planned. Should bat roosts be found, no works to remove the trees can take place until a derogation licence is obtained from Natural Resources Wales (NRW).
- 5.5 There may be plans to remove other trees identified as being of some potential to support roosting bats due to poor health and these will also need to be considered in further survey, as should any cutting back of existing overhanging growth.

Characterisation of Impact

- 5.6 Given the number of available trees on and adjacent to the Site, including those within the wooded area and on the woodland edge, the number of trees that will be removed is small. The life expectancy of the trees identified is also poor according to the findings of the arboricultural survey. As such, the potential impact on roosting bats is considered to be of **minor significance** in a Site context but of **no significance** in a wider (County) context **even should roosting bats be found in later survey**. With proper management of retained trees and retention of the boundary trees and woodland area with new trees planted to replace those lost, no long term impacts are foreseen.
- 5.7 An attempt has been made to quantify the Site in relation to Ecological Resilience in Section 6 as defined in the Environment (Wales) Act 2016, Section 6 within the body of the PEA and the findings reported therein are considered to remain valid in the light of the present findings. These will be further reviewed and updated with appropriate mitigation at the conclusion of the bat surveys.

6 RELEVANT LEGISLATION AND POLICIES

Bats

- 6.1 All UK bats are protected under the Wildlife and Countryside Act 1981. Schedule 5 of this act makes it illegal to intentionally kill, injure or take bats. It is also an offence to intentionally damage or destroy their place of rest. In 2007 the offences of killing, injuring or taking species under Section 9(1), 9(2) and 9(4)a of European Protected Species listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) were removed to avoid duplication with their protection under Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (The Habitats Directive) as amended. The regulations remove the defence of inadvertent or accidental damage to roosts and make the offence ‘absolute’.
- 6.2 They are also protected under Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (The Habitats Directive) as amended which requires the United Kingdom government to provide European Protected Species with strict protection.
- 6.3 The Habitats Directive is transcribed into England and Wales Law by The Conservation of Habitats and Species Regulations 2017, this legislation consolidates amendments made to the earlier 2010 act. This legislation states in Part 3, Protection of Species, paragraph 43(1) that a person who:
- (a) deliberately captures, injures or kills any wild animal of a European Protected Species,
 - (b) deliberately disturbs wild animals of any such species,
 - (c) deliberately takes or destroys the eggs of such an animal, or
 - (d) damages or destroys a breeding site or resting place of such an animal,
- is committing an offence.
- 6.4 Further, with regard to disturbance of EPS, Paragraph 43(2) that disturbance is an act which is likely to:
- (a) to impair their ability—
 - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - (b) to affect significantly the local distribution or abundance of the species to which they belong.
- 6.5 In the case of a development involving the loss or modification of a habitat which may affect an EPS the above legislation must be considered and it may be necessary to apply to Natural Resources Wales for a European Protected Species Derogation Licence EPSL.
- 6.6 The introduction of the Conservation of Habitats and Species Regulations 2017, has removed the defence of killing or injuring a protected species during a lawful operation, thus even in an instance where planning permission is granted, the presence of EPS must be considered and mitigated for prior to commencement of works. Under the above regulations, a derogation licence can only be given if three tests are satisfied:
- The action proposed is in the interest of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance to the environment;
 - That there is not a satisfactory alternative;

- That the action proposed will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

- 6.7 Failure to satisfy the regulations and obtain an EPSL where required is likely to result in prosecution and can lead to severe fines of up to £5000 per animal and possible imprisonment.
- 6.8 Eight species of bat are listed under section 7 of the Environment Wales Act (2106). Section 7 of the Act provides a list of living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This is a list of species considered at threat within Wales and in need of conservation management to maintain and enhance population numbers.
- 6.9 A duty is placed on the Local Authority by the Welsh Assembly Government to maintain and enhance populations of species listed in Section 7.

7 RECOMMENDATIONS

- 7.1 Further surveys will be undertaken as recommended. The recommended surveys are to the levels specified in the Bat Conservation Trust Good Practice Guidelines (2016).
- 7.2 In addition to further survey for trees of medium and high potential, recommendations made in table 1 in relation to trees of low roost potential calling for pre-inspections and/or soft felling and these recommendations will be implemented. There are no constraints to management of trees categorised as being of negligible potential for roosting bats.
- 7.3 Any pruning or other management works, as well as felling, that are proposed on trees of moderate or high potential should be undertaken with appropriate ecological supervision and following a toolbox talk informing the tree workers of the habits, ecology and law relating to bats.
- 7.4 Enhancement/mitigation should be provided by placing woodcrete bat boxes on mature trees and within the woodland. Typical examples are shown in ion Figure 2.
- 7.5 Should there be evidence of roosting bats found, or bats be found at any time during the works, a Derogation Licence will be needed to allow works to proceed if the trees supporting them are to be removed and may be needed if management works (i.e. cutting back) are to be undertaken.

8 CONCLUSIONS

- 8.1 The tree climbing bats surveys have identified trees where further survey is necessary to best demonstrate the probable absence or confirm the presence of bats in trees with suitable potential roost features (PRF's).
- 8.2 These further surveys will properly inform management of retained habitats on the Site and inform any amendments to recommendations made in this and the PEA report.

- 8.3 It is our conclusion that if the trees where further survey is required are properly protected during the survey season, there are no reasons that the initial ground works could not proceed. Given the likely short life expectancy of the trees involved, the provision of bat boxes will offer appropriate mitigation should any tree roost be discovered that is to be lost to the development.
- 8.4 Should a bat roost be found at any point a derogation licence will need to be obtained before any works can be undertaken affecting it.

9 BIBLIOGRAPHY

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

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

**FIGURE 1:
APPROXIMATE LOCATIONS OF TREES ASSESSED IN PRA**

Figure 2: Location of trees assessed in Preliminary Roost Assessment

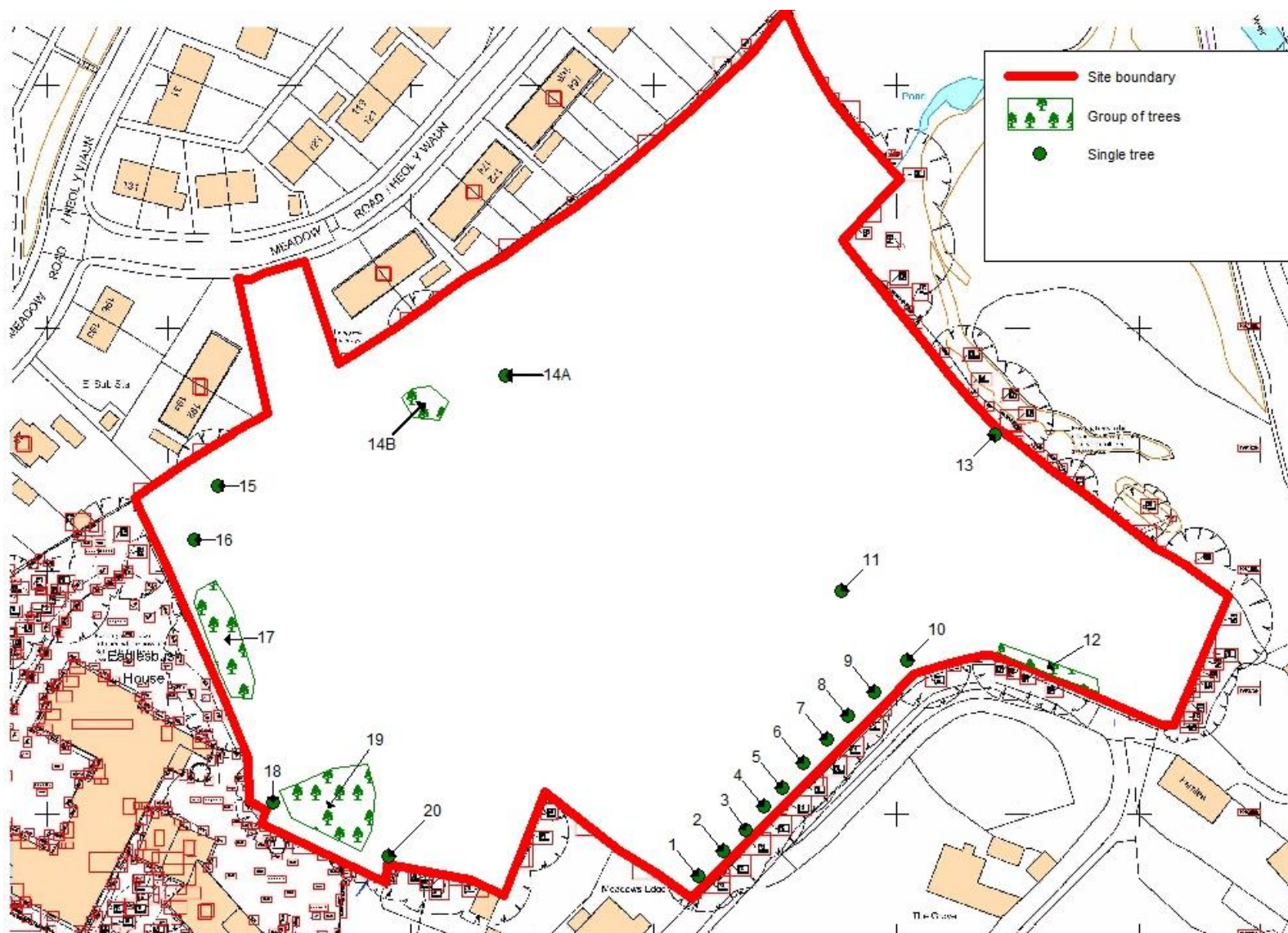


FIGURE 2
SUITABLE BAT BOXES FOR TREES



Schwegler 2F general summer
bat box.

Schwegler 1FD, suitable for larger
bats such as noctule, ideal for
woodland areas.



APPENDIX 1
PHOTOGRAPHS

T1



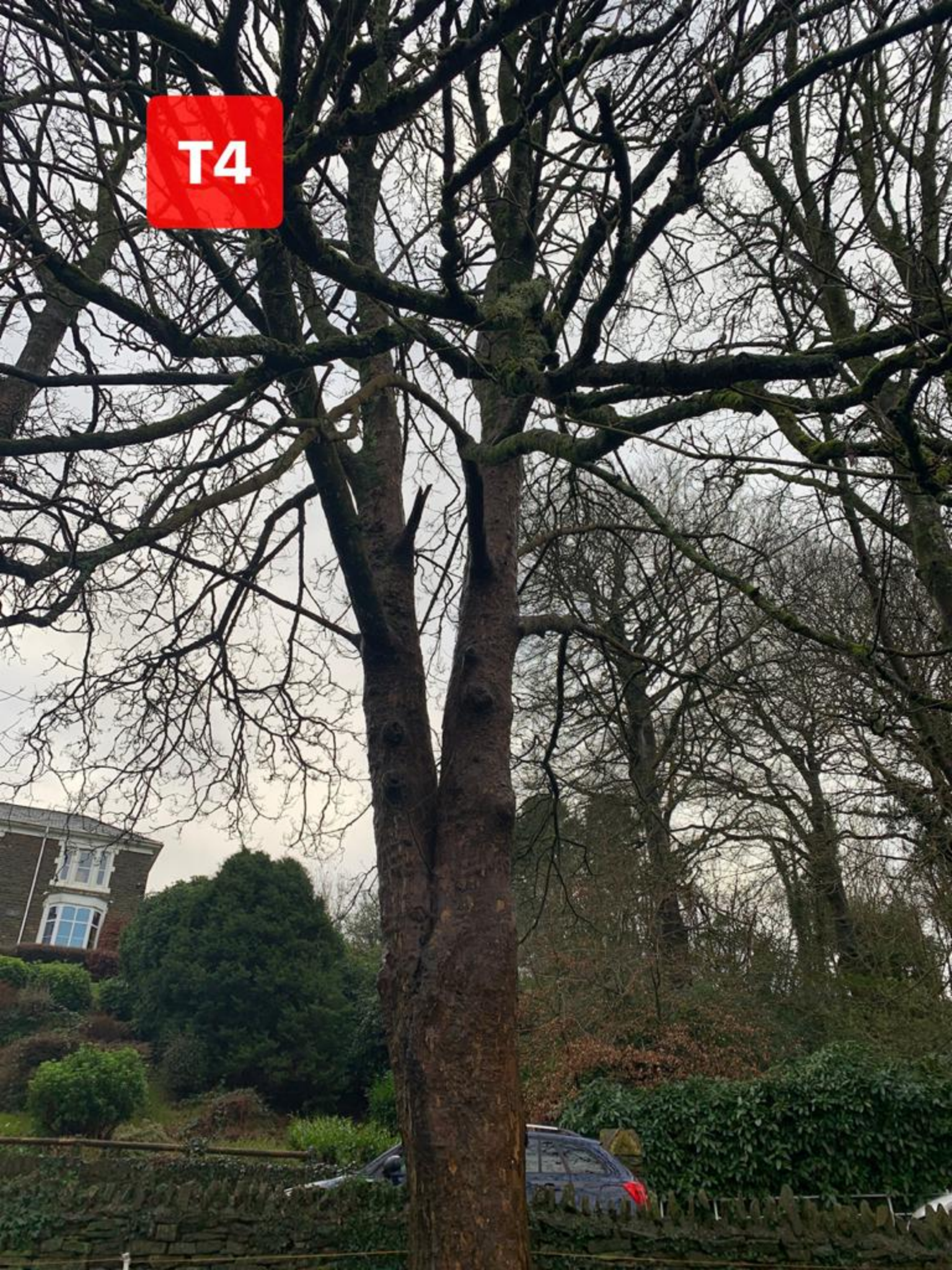
T2



T3



T4



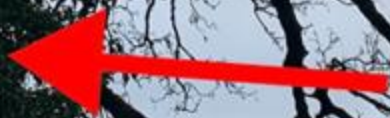
T5



T6



T7



T8



A low-angle photograph of a large, leafless tree with a thick trunk and a dense network of branches against a cloudy sky. A red square label with the text 'T9' is positioned in the upper left. In the background, other bare trees and a building are visible.

T9

T10



T11



T12a



T12b



T12c

A photograph of a tall, slender tree trunk, likely a deciduous species, standing against a clear blue sky with some light clouds. The tree's bark is light brown and shows signs of peeling or damage near the base. Several bare branches extend from the trunk, and some green leaves are visible higher up. In the background, other trees and a utility pole are visible. A red rectangular label with the text 'T12c' is positioned in the upper left corner of the image.

T12d



T14a



T14b



T18



T19a



T19b



T19c



T19d





T19e

T20



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