

Heronsbridge School: File Note - Preliminary Ecological Appraisal, Dormouse Survey Validation and Ground Level Tree Assessment

Project name Heronsbridge School	Client Bridgend County Borough Council	Project number 60704349	Date July 2025
Prepared by WG ACIEEM Consultant Ecologist	Checked by HL MCIEEM Associate Director	Verified by LN MCIEEM Associate Director	Approved by CH MCIEEM Associate Director

1. Introduction

AECOM was instructed by Bridgend County Borough Council (hereafter the 'client') to provide a Preliminary Ecological Appraisal (PEA) validation, hazel dormouse *Muscardinus avellanarius* survey validation and Ground Level Tree Assessment (GLTA) in association with the proposed Heronsbridge Special School (hereafter the 'Proposed Development') at land in Bridgend, South Wales (hereafter the 'Site').

The original PEA (which included a GLTA (formally referred to as Preliminary Roost Assessment (PRA) under previous guidance) was undertaken in March 2023 (hereafter referred to as the '2023 PEA')¹ and hazel dormouse surveys were undertaken at the Site between June and November 2023². Due to the time elapsed since these surveys took place, and subsequent amendments to the Site boundary, an update survey was required to assess whether the habitats on Site had materially changed. The requirement for this survey is also in accordance with Chartered Institute of Ecology and Environmental Management (CIEEM) guidance³.

This file note includes the results of this survey and provides recommendations for further survey and/or mitigation and enhancement (where required).

The Site is located on the southern outskirts of Bridgend, at ordnance survey central grid reference SS 90179 78239, within arable land bound by woodland and residential areas. An indicative Site boundary (the 2023 PEA Site boundary) is shown on Figure 1. This boundary is subject to alteration as the design is finalised.

The Proposed Development is for a new build project to replace the existing Heronsbridge Special School which is currently located approximately 0.8 km northeast of the Proposed Development, within Bridgend. The Proposed Development will use approximately 2.94 ha, out of the 4.20 ha allocated, and will accommodate 300 primary and secondary pupils. Option 7 of the potential Site layouts⁴ has been used for this assessment. Option 7 for the Proposed Development includes:

- Two-storey main school complex to the south of the Site containing shared facilities and secondary/sixth form provision, joined with a single-storey building containing primary/nursery provision to the west;
- Autism unit, separate but linked to the main school complex by a covered walkway to the northeast;
- Lagoon to act as rainwater attenuation in the west corner of the Site;
- Car park with 91 car spaces and eight minibus spaces to the east;
- New road parallel to the eastern boundary of the Site;
- Two residential blocks placed to the southeast, screened from car park and road through planting of hedges and trees; and,
- A football pitch and Multi-use Games Area (MUGA) to the north.

¹ AECOM (2023) Heronsbridge School Preliminary Ecological Appraisal and BREEAM Report

² AECOM (2024) Heronsbridge School Hazel Dormouse *Muscardinus avellanarius* Survey Report

³ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

⁴ Roberts Limbrick Architects (2021) Heronsbridge School, Bridgend: Feasibility Study. V6.

A lighting plan has not been finalised.

1.1 Quality Assurance

This survey and file note was undertaken in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, quality, environmental and health and safety management. All staff members are committed to establishing and maintaining our certification to the international standards BS EN ISO 9001:2015 and 14001:2015 and ISO 45001:2018. In addition, our IMS requires careful selection and monitoring of the performance of all sub consultants and contractors.

All AECOM ecologists who worked on this project are members of (at the appropriate level) the CIEEM and follow their code of professional conduct⁵ when undertaking ecological work.

2. Methods

2.1 Preliminary Ecological Appraisal Validation

A walkover survey was undertaken on 14 April 2025 by two suitably experienced ecologists. These surveyors assessed the habitats and species present against the 2023 results to determine any significant change.

The methodology for the original PEA survey is set out within the 2023 PEA¹. The same methodology was followed during the 2025 Site visit.

2.2 Ground Level Tree Assessment

The GLTA was undertaken on the 14 April 2025. The survey assessed trees within, and adjacent to, the Site for their suitability to support bat roosts, paying due regard to the methodology set out in the Bat Conservation Trust (BCT) bat survey guidelines⁶ (which have updated since the previous survey¹).

All trees within the woodland to the west of the Site were assessed up to a 15 m buffer from the Site boundary. The woodland trees will be retained by the Proposed Development but may be subject to damage and/or disturbance during construction. It is anticipated that the trees behind this 15 m buffer will be protected from damage and any significant disturbance and therefore did not require survey.

A broadly circular wooded depression approximately 70 m to the south of the Site boundary was included within the GLTA as an isolated block of suitable habitat from which any roosting bats would likely utilise the Site.

The GLTA included a check of the ground/ledges/crevices below identified features for evidence of bat occupation (such as bat droppings or fur-oil staining).

The trees were inspected from the ground for Potential Roost Features (PRFs) that could be utilised by roosting bats. Based on this inspection, each tree was classified for their suitability to support roosting bats. The classification system used to determine the suitability of trees is outlined in Tables 2-1 and 2-2. Often during a GLTA it is only possible to attribute a rating to a tree as outlined in Table 2-1, an aerial tree assessment is then required to accurately apply the more detailed ratings described in Table 2-2.

Table 2-1 Trees – Bat Roost Suitability Categories – GLTA

Roost Suitability	Descriptions for Trees
None	Either no PRFs in the tree or highly unlikely to be any.
FAR	Further assessment required to establish if PRFs are present in the tree.
PRF	A tree with at least one PRF present.

Source: Category descriptions drawn from Collins (2023)⁶ to be applied using professional judgement

Table 2-2 Trees – Bat Roost Suitability Categories

⁵ CIEEM (2025) Code of Professional Conduct. Chartered Institute of Ecology and Environmental Management (CIEEM). April 2025.

⁶ Bat Conservation Trust (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)

Roost Suitability	Descriptions for Trees
None	Either no PRFs in the tree or highly unlikely to be any.
PRF-I	PRF-I is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF-M is suitable for multiple bats and may therefore be used as a maternity colony.
<i>Source: Category descriptions drawn from Collins (2023)⁶ to be applied using professional judgement</i>	

2.3 Hazel Dormouse Survey Validation

The 2023 PEA¹ identified suitable habitat for hazel dormouse within the Site including boundary hedgerows, lines of trees, and dense scrub. Hazel dormouse surveys were undertaken within this habitat, and within woodland habitat adjacent to the Site, in 2023². No evidence of hazel dormouse presence was recorded during the 2023 hazel dormouse survey and they were assumed likely absent from the habitats on Site.

During the walkover survey for the PEA validation, these habitats were assessed for any material changes that might increase the suitability of the habitat for hazel dormouse. Such changes include the development of a mid-height understorey (noted as absent and a limitation to the suitability of the tree lines and woodland), the presence of additional species that might provide a year-round feeding resource, or the planting or spread of additional scrub or hedgerow that increases the connectivity of the habitat within the Site to the wider landscape.

2.4 Limitations

The methods adopted and the sources of information used by AECOM in providing its services are outlined in this technical note. The work described in this report was conducted in April 2025 and is based on the conditions encountered and the information available during the said period. The scope of this report and the services are accordingly factually limited by these circumstances. AECOM disclaim any undertaking or obligation to advise any person of any change in any matter affecting the report, which may come or be brought to AECOM's attention after the date of the report.

A detailed Preliminary Roost Appraisal (PRA) of Building 1 (B1) (detailed in Section 3.1) was not undertaken due to surveyors having no access to the building and recommendations have therefore been provided for further survey.

During the GLTA, it was not possible to fully assess the west face of Tree 02 (T02) (detailed in Section 3.2) due to a barbed wire fence and the lack of agreed access to neighbouring land ownership. Further survey of T02 has therefore been recommended to help address this limitation.

3. Results

3.1 Preliminary Ecological Appraisal Validation

The habitats within the Site remain consistent with those recorded in the 2023 PEA¹ and are illustrated on the 2023 PEA Phase 1 habitat figure (Appendix B). The habitats recorded include dense scrub, scattered scrub, neutral semi-improved grassland, improved grassland, tall ruderal vegetation, arable land, a line of trees, intact species-poor hedgerows, bare ground, fences, walls, and a manure pile.

No Habitats of Principal Importance (HoPI) as listed under Section 7 of the Environment (Wales) Act 2016 (including arable field margins⁷), were recorded within the Site, with agricultural cropland extending to the linear boundary habitats (i.e. lines of trees, scrub and hedgerows).

3.1.1 Buildings

There are residential properties and office buildings located around the north and west boundaries. One building in particular (B1) was identified approximately 0.1 km to the east outside of the Site with suitability for roosting bats, including horseshoe bat species *Rhinolophus sp.* B1 was not identified in the 2023 PEA due to being outside of the Site boundary

⁷ Defra (2008) UK Biodiversity Action Plan; Priority Habitat Descriptions. Arable Field Margins. BRIG (ed. Ant Maddock)

however it is considered notable due to its roosting potential for horseshoe bat species, and proximity of an adjacent Site of Importance for Nature Conservation (SINC) designated for lesser horseshoe.

B1, as shown on Figure 1, is derelict with open windows and doors that provide access to internal features. There is fly-in access to loft spaces and internal dark rooms/areas within the building which may provide roost spaces for void dwellings species (such as horseshoes and log-eared bats *Plecotus sp.*) as well as internal and external crevice features (such as fascia boards, tiles, cavity walls) providing opportunities for crevice dwelling species such as pipistrelle *Pipistrellus sp.*

B1 has suitability for horseshoe bat species and is located in proximity to, and has connectivity via the Site to, Island Farm POW Camp Site of Importance for Nature Conservation (SINC) (adjacent to the west of the Site and designated for a lesser horseshoe bat *Rhinolophus hipposideros* maternity roost). B1 has potential to be utilised as a satellite roost by bats associated with Island Farm POW Camp SINC, with the green corridors of the Site connecting the two. A detailed Preliminary Roost Appraisal (PRA) of B1 was not undertaken due to surveyors having no access to the building (see Section 2.4). From what was observed, B1 has Moderate suitability for roosting bats, defined by BCT as ‘a structure with one or more potential roost sites 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 (with respect to roost type only, the categorisation described is irrespective of the species conservation status)’. The building has suitability for non-classic hibernation in crevice type features, the presence of classic cool/stable hibernation sites is considered unlikely. The building is abandoned and therefore not heated with open/broken windows inviting drafts and fluctuating temperatures, this may limit but not completely rule out its suitability for maternity roosting. As a full PRA was not completed a conclusion of Moderate suitability has been made.

No additional evidence and/or potential of protected species was recorded during the walkover survey.

3.2 Ground Level Tree Assessment

The GLTA recorded:

- three trees with Potential Roost Features (PRF) - (T01, T04 and T05);
- one tree (T02) as Further Assessment Required (FAR) to determine whether PRFs are present; and,
- one tree (T03) as None, which was downgraded having previously been assessed as ‘moderate’ in the 2023 PEA¹.

The results of the GLTA are provided in Table 3-1 and are illustrated on Figure 1.

Table 3-1 Results of the Ground level Tree Assessment

Tree Reference	Tree Species	Diameter at Breast Height (DBH) (cm)	Approximate Tree Height (m)	Description of Features	GLTA Result
T01	Ash <i>Fraxinus excelsior</i>	200	17	A veteran, potentially ancient, multi-stem ash with significant basal spread and rot features that is located adjacent to the indicative Site boundary. At least six woodpecker holes are present on the stems, and there is a large knothole at approximately 10 m that appears to extend into a cavity. The features on this tree are potentially suitable for hibernation, subject to further assessment. (Photograph 1, Appendix A)	PRF
T02	Oak <i>Quercus sp.</i>	100	15	An oak located adjacent to the indicative Site boundary. with no identified suitable PRFs. However, the west face could not be reached to thoroughly look for suitable features (Photograph 2, Appendix A) due to a barbed wire fence and the lack of agreed access to neighbouring land ownership. Further survey of T02 has therefore been recommended to help address this limitation.	FAR
T03	Oak	110	15	An oak located adjacent to the indicative Site boundary with no identified suitable PRFs. This tree was recorded as having ‘precautionary Moderate’ suitability in the 2023 PEA, under superseded guidance ⁸ . The knotholes identified in 2023 were confirmed to not extend into suitable features during the update walkover using binoculars. (Photograph 3, Appendix A).	None

⁸ Bat Conservation Trust (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)

Tree Reference	Tree Species	Diameter at Breast Height (DBH) (cm)	Approximate Tree Height (m)	Description of Features	GLTA Result
T04	Ash	60	15	A mature ash set amongst scrub within the depression approximately 0.1 km to the south of the Site boundary, off-Site. The ash has one snapped limb facing north. The limb is exposed, with the opening of any potential feature facing upward at approximately 10 m. This means any potential feature would likely be exposed to adverse weather, limiting its suitability. This feature is not suitable for hibernating bats. (Photograph 4, Appendix A)	PRF
T05	Ash	70	15	A mature ash set amongst scrub within the within the depression approximately 0.1 km to the south of the Site boundary, off-Site. There is rolled and lifting bark on a north facing limb approximately 5 m above the ground which provides crevices for small numbers of roosting bats. These features are not suitable for hibernating bats. (Photograph 5, Appendix A)	PRF

3.3 Hazel Dormouse Survey Validation

There was no change in the availability or suitability of the habitat for hazel dormouse within the Site (including the boundary hedgerows, lines of trees, dense scrub and adjacent woodland) and consequently, the results of the 2023 hazel dormouse survey² remain valid and hazel dormouse is assumed likely absent from the Site.

4. Recommendations for Further Assessment and Mitigation

The recommendations for mitigation and further survey, and for ecological enhancements, detailed within the 2023 PEA remain valid and relevant (except where detailed below) and should therefore be read in conjunction with the following recommendations provided below.

4.1 Further Surveys and Assessments

4.1.1 Botanical Survey

The walkover survey confirmed the absence of HoPI within the Site including absence of arable field margins. The requirement for further botanical survey (including National Vegetation Classification of arable land margins) recommended within the 2023 PEA has therefore been scoped out and is no longer required.

4.1.2 Roosting Bats

4.1.2.1 Buildings

It is recommended that a full PRA is undertaken of Building B1 to confirm the number and location of all features with suitability to support roosting bats. Bat emergence surveys should then be undertaken, with at least six surveyors supported by night vision aids located around the building. An internal inspection is not deemed safe due to the derelict nature of the building and is therefore not recommended. The PRA may be undertaken immediately prior to the first emergence survey (if required due to seasonal survey timing restraints).

Up to three emergence surveys will be required for B1 with each visit ideally being at least three weeks apart. The surveys should be undertaken between May and September with at least two visits between May and August. Due to the precautionary Moderate potential of B1, these surveys may stop after two visits if no emergences are recorded (unless the PRA updates the potential of B1 to High).

The requirement for any hibernation surveys will be determined by the results of the PRA and emergence surveys, and by the final layout of the Proposed Development.

4.1.2.2 Trees

Trees T01 and T02 require further survey for roosting bats.

Typically, an aerial climbed PRF inspections would be completed to help rule in or out features identified during the GLTA. T01 cannot be inspected with an aerial inspection due to having ash dieback symptoms therefore being unsafe and likely too brittle to climb. Climbing access to T02 may be inhibited by the barbed wire fence and may not be successful.

Bat emergence surveys should be undertaken at both trees with at least two surveyors supported by night vision aids located around each tree. If access to neighbouring land is obtained an updated GLTA of the western face of T02 will be undertaken during the first emergence survey. If no PRFs are identified, T02 may be scoped out of additional further survey. It is recommended that at least one surveyor at the first emergence survey (and the update GLTA of the western face of T02) is a certified tree climber to determine whether T02 is safe to undertake aerial climbed PRF inspections.

Up to three emergence surveys (or aerial climbed PRF inspections at T02, if it is determined safe to climb during the first emergence survey) will be required for T01 and T02 with each visit ideally being at least three weeks apart. The surveys should be undertaken between May and September with at least two visits between May and August.

If bats are confirmed roosting and are likely to be impacted i.e. through tree felling or pruning, a European Protected Species Mitigation License (EPSML) may be required from Natural Resources Wales prior to construction commencing. The results of the further surveys will inform detailed mitigation measures.

T03 has no roost suitability and does not require further survey.

T04 and T05 do not require further survey at present due to their distance from the Site (approximately 0.1 km south). If the design changes, and impacts are anticipated at T04 and T05 (as determined by a suitably experienced ecologist), it may be necessary to undertake further survey at these trees.

4.1.3 Hazel Dormouse Survey Validation

The dormouse validation confirmed no further survey for hazel dormouse is required.

Recommendations and mitigation measures detailed in the 2023 hazel dormouse survey report should be followed, which is included the requirement of Precautionary Working Method (PWM). This would include the phased removal of suitable vegetation (hedgerows, scrub and trees) in the winter and supervision of by a suitably experience ecologist.

If the Proposed Development does not begin construction until five years after the date of the surveys (e.g. prior to November 2028) and/or the habitats on Site materially change then, in accordance with best practice guidelines⁹, update hazel dormouse surveys will be required.

4.1.4 Other Protected Species Surveys

Bat activity, badger and Invasive Non-Native Plant Species (INNPS) surveys, as recommended in the 2023 PEA, are currently being undertaken and the results of these surveys will be reported separately.

4.2 Net Benefit for Biodiversity (NBB)

The Welsh Government provided an update to Chapter 6 of the Planning Policy for Wales in October 2023¹⁰, (i.e. following the 2023 PEA), outlining updates to the Net Benefit for Biodiversity (NBB) strategy in Wales.

This update ensures that developments should contribute to biodiversity, ecosystem resilience, and the ecosystem services of the Site and wider area. Proposals should be able to demonstrate that they have maintained and enhanced biodiversity. NBB should be demonstrated by following the mitigation hierarchy via the step-wise approach of avoiding loss, minimising loss, mitigating for loss, and, finally, compensating for any loss. Compensation may be off-site if on-site compensation is not possible.

An assessment on the NBB of the Proposed Development should therefore be undertaken with consideration for the ecological DECCA (Diversity, Extent, Condition, Connectivity and Adaptability) attributes of the Site. This should include any enhancements and long-term management and monitoring plans (where proportional with the Proposed Development). Long-term management plans should set out immediate and on-going management strategies, future

⁹ Wells, D., Chanin, P., and Gubert, L. (2025) Hazel Dormouse Mitigation Handbook. Mathews, F (Ed.) The Mammal Society. ISBN 9781068798221

¹⁰ Annex to Heads of Planning Letter Dated 11 October 2023: Addressing the Nature Emergency through the Planning System: Updated National Planning Policy for Chapter 6 of Planning Policy Wales. Available online: <https://www.gov.wales/sites/default/files/publications/2023-10/annex-addressing-the-nature-emergency-through-the-planning-system.pdf> [Last Accessed 29 April 2025]

monitoring plans and their objectives, and should identify the funding mechanism for the delivery of the long-term management. NBB measures should be designed in such a way that minimal maintenance is necessary, they are resilient to climate change, and the risk of their future damage or loss is minimal.

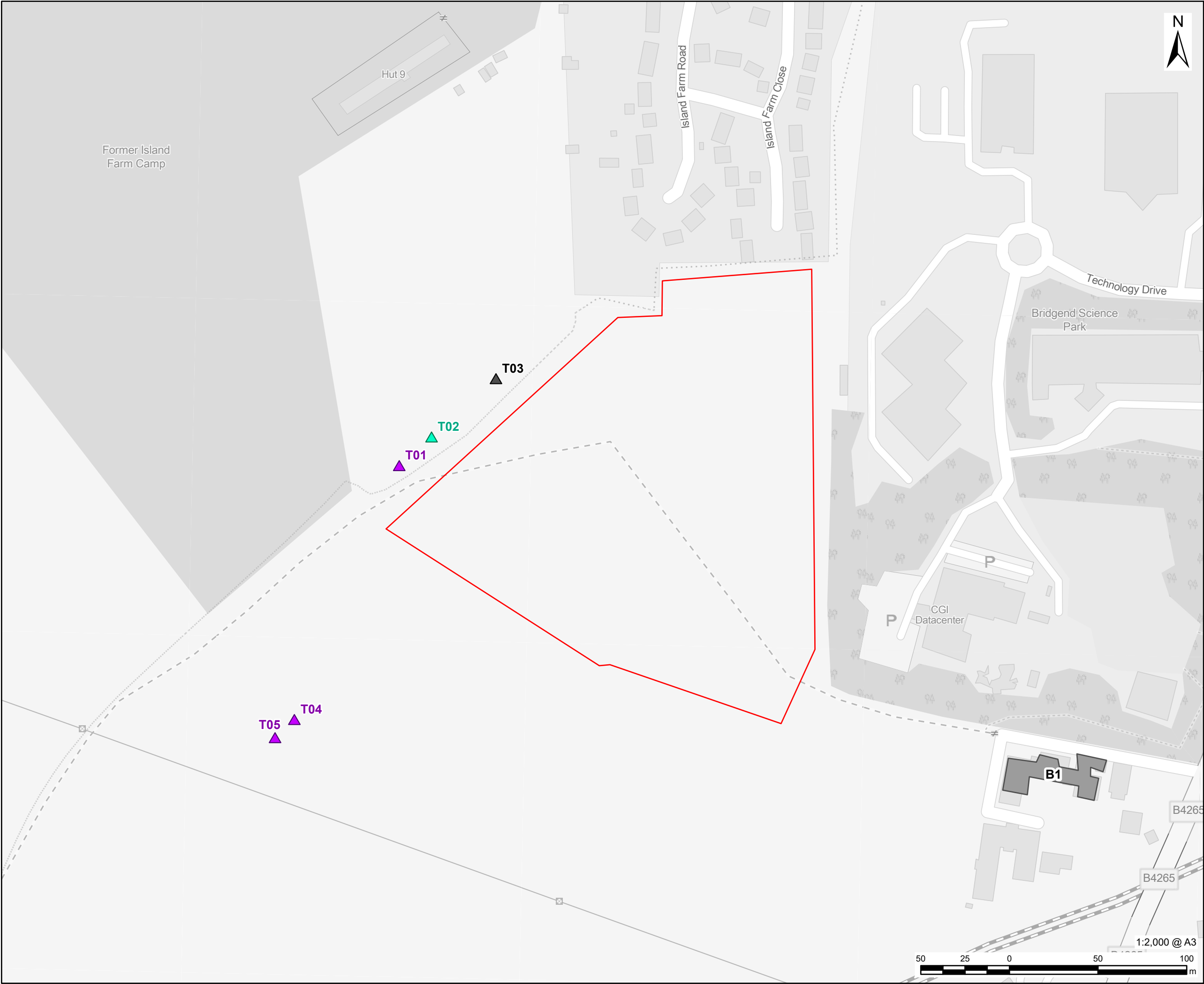
A Green Infrastructure Statement must be submitted with all planning applications as part of the NBB strategy – proportionate to the scale and nature of the proposal. The Green Infrastructure Statement must demonstrate how the step-wise approach to NBB has been applied, as well as baseline data considered, and surveys and assessments undertaken as part of the proposal. Where necessary, the Green Infrastructure Statement should also be used to identify suitable locations for securing off-site compensation as part the NBB assessment.

4.3 BREEAM Assessment

It is recommended that an updated Building Research Establishment Environmental Assessment Method (BREEAM) Land use and Ecology (LE) Assessment is undertaken following the design updates, to account for changes to the pre-development site boundary and changes to proposed post-development layouts and habitats. The BREEAM calculator will be updated.

Figures

Figure 1. Ground Level Tree Assessment Results and Indicative Site Boundary



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AECOM

PROJECT
Heronsbridge School

CLIENT
Bridgend County Borough Council

CONSULTANT
AECOM Limited
3 Rivergate, Temple Quay,
Redcliffe, Bristol,
BS1 6ER
www.aecom.com

LEGEND

- Indicative Site Boundary
- GLTA Results
 - FAR
 - None
 - PRF
 - No Detailed Preliminary Roost Appraisal Undertaken

NOTES
1: Basemapping: Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri

ISSUE PURPOSE
Preliminary Ecological Appraisal and Dormouse Survey Validation and Ground Level Tree Assessment File Note

PROJECT NUMBER
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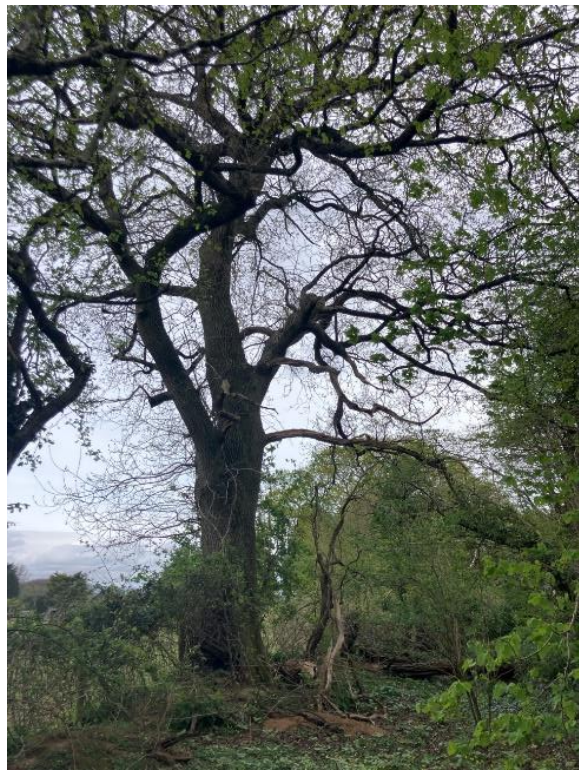
FIGURE TITLE
Ground Level Tree Assessment Results and Indicative Site Boundary

FIGURE NUMBER
Figure 1

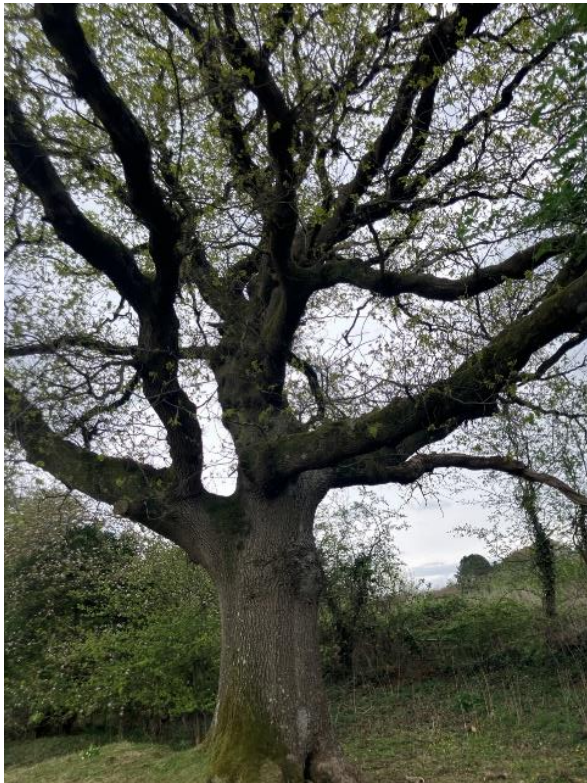
Appendix A Site Photographs



Photograph 1: T01, ash with identified PRFs



Photograph 2: T02, oak with no identified features, however the west face was inaccessible



Photograph 3: T03, oak within the Site with no identified PRFs.

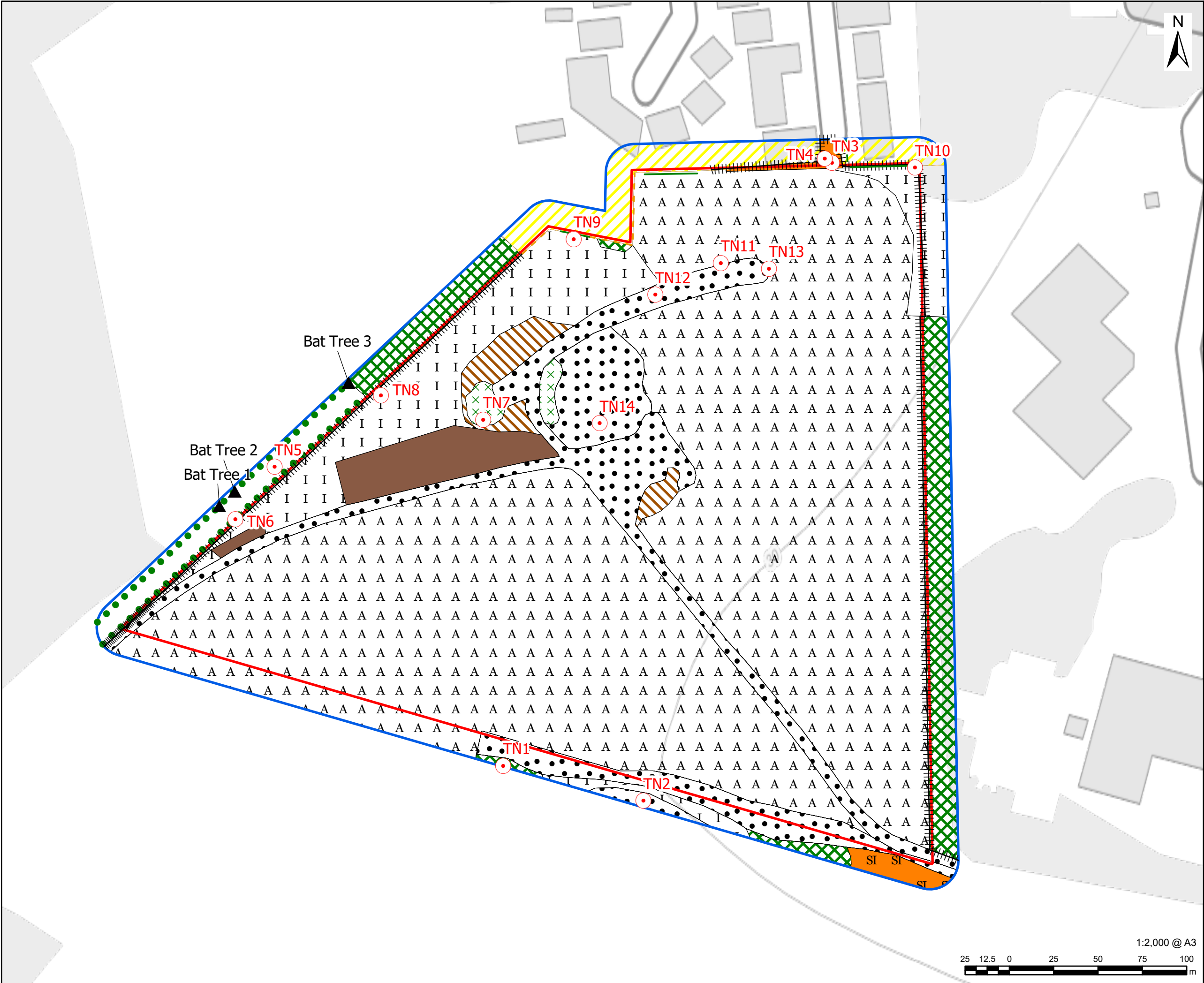


Photograph 4: T04, mature ash set amongst scrub within the depression approximately 0.1 km to the south of the Site boundary (off-Site) with an identified PRF



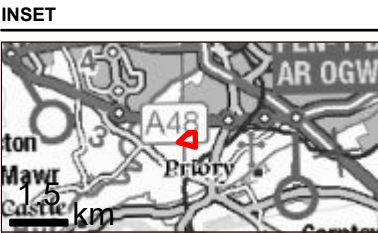
Photograph 5: T05, mature ash with dense ivy cover set amongst scrub within the depression approximately 0.1 km to the south of the Site boundary (off-Site). The tree has identified PRFs

Appendix B 2023 PEA Phase 1 Habitat Figure



LEGEND

- Site boundary
- Zone of influence
- Area not accessible
- Bat tree
- Target note
- Broadleaved parkland/scattered trees
- Intact hedge - species-poor
- Defunct hedge - species-poor
- Fence
- Wall
- Scrub - dense/continuous
- Scrub - scattered
- Neutral grassland - semi-improved
- Improved grassland
- Other tall herb and fern - ruderal
- Cultivated/disturbed land - arable
- Bare ground
- Manure Piles



NOTES
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ISSUE PURPOSE
FINAL

PROJECT NUMBER
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FIGURE TITLE
Heronsbridge School Phase 1 Habitat Map

FIGURE NUMBER
Appendix B

