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Ardagh Metal Packaging
Proposed New Building Extension and Tank Construction
Biodiversity Enhancement Plan and Green Infrastructure Statement

2nd June 2026



Report by: Heaven Kyriacou

Client: Andy Clarke (on behalf of TACP Architects)

Planning Authority: Wrexham County Borough Council

Grid Reference: SJ 37900 49770 (approximate site centre).

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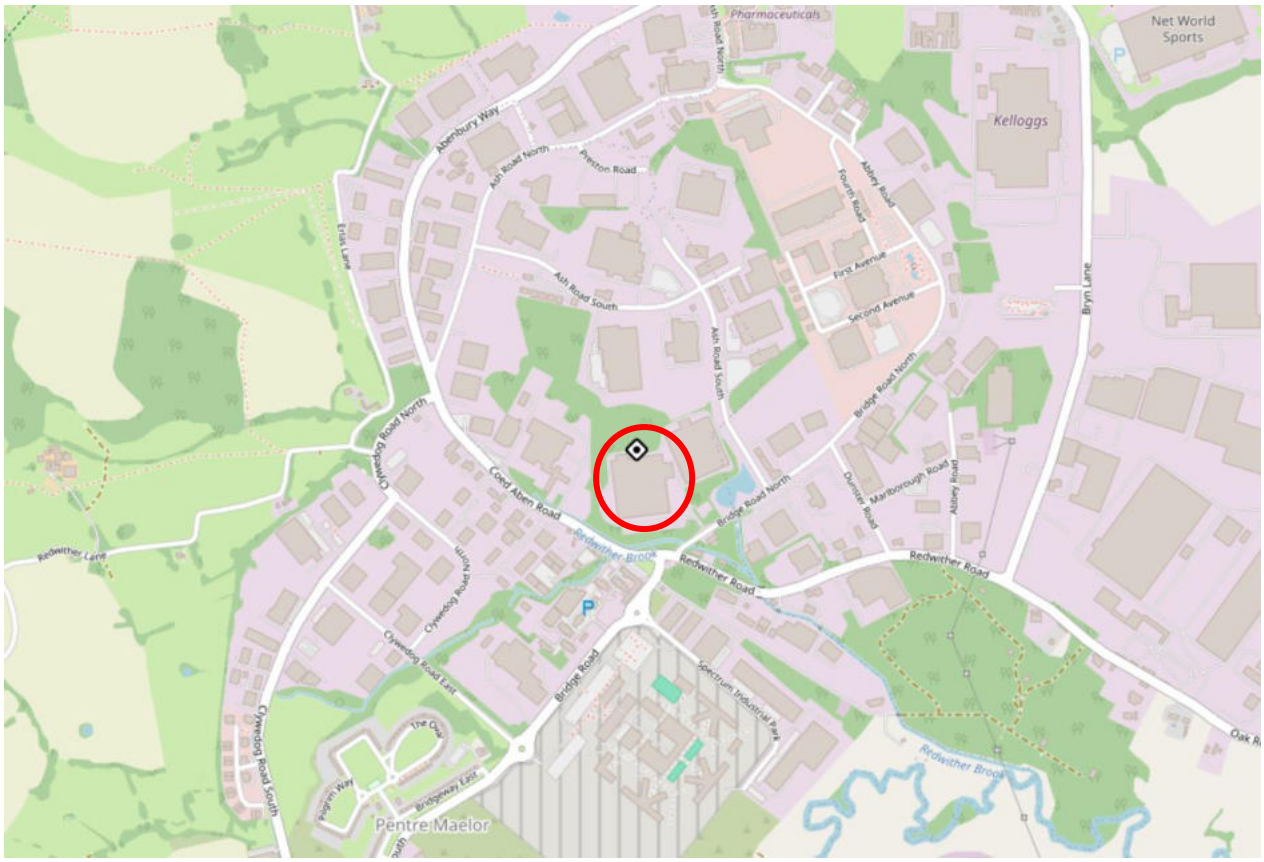


Figure 1: Site Location.

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1. Introduction

Cambrian Ecology Ltd was commissioned by Andy Clarke (on behalf of TACP Architects) to produce a biodiversity enhancement plan and green infrastructure statement of land at Ardagh Metal Packaging, Bridge Road, Wrexham LL13 9PS. A Preliminary Ecological Assessment (PEA) has been previously produced in November 2025 (Cambrian Ecology, 2025).

It is proposed to extend the current packaging plant. construct two 40,000 litre external tanks and add a new parking area (see Figure 2).

The relevant Planning Authority is Wrexham County Borough Council, which requires ecological survey reports to be submitted as an integral part of the planning application.

The proposed location of the development is in an urban location within the Wrexham Industrial Estate at Grid Reference: SJ 37900 49770 (approximate site centre).

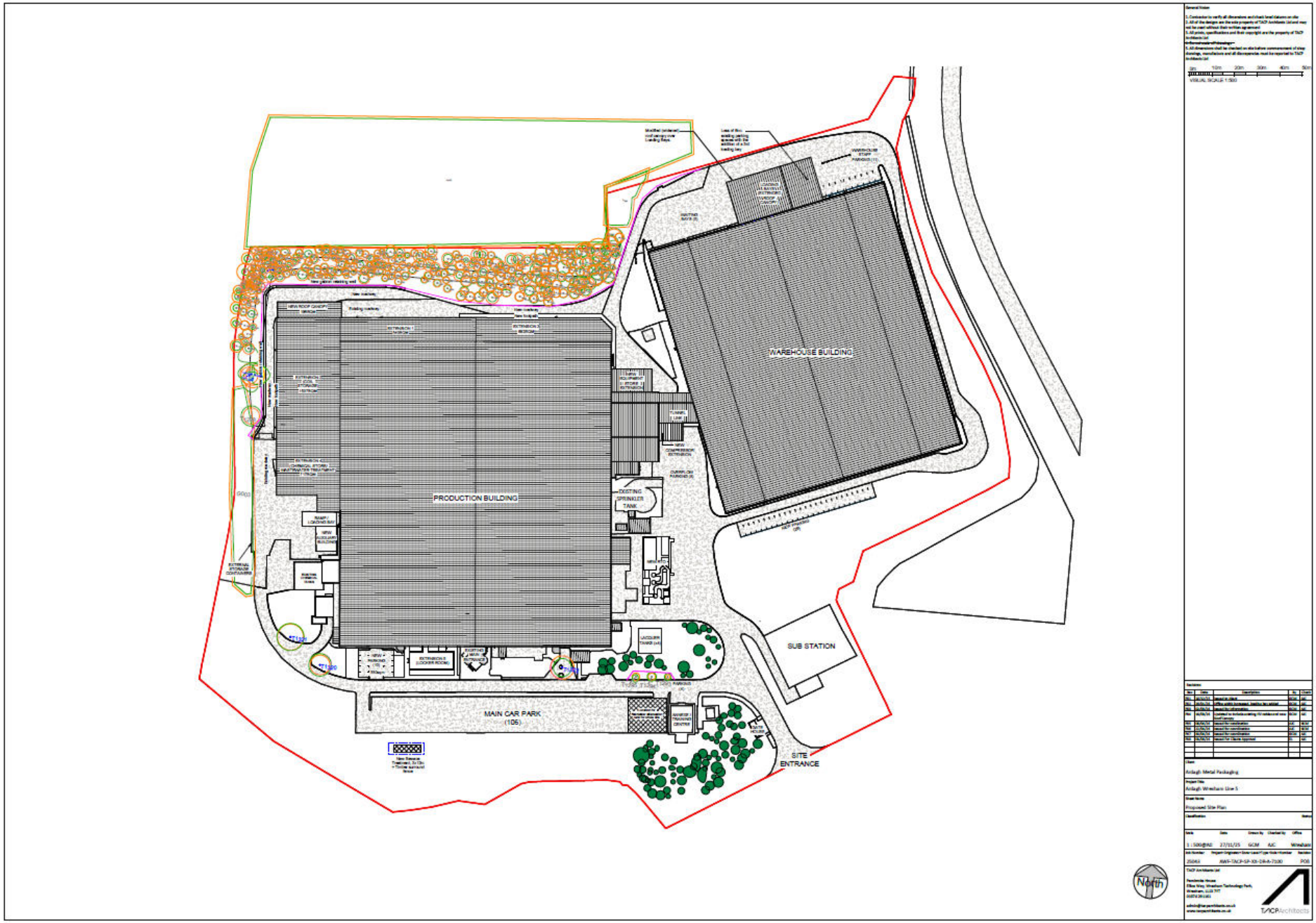


Figure 2: Proposed site plans.

2. Methodologies

This document was prepared by ecologist Heaven Kyriacou. Heaven is a qualifying member of Chartered Institute of Ecology and Environmental Management (CIEEM), she is an accredited agent on the bat licence of Chris Hall (S095271/1). Chris has been working as an independent ecologist for 20 years and has held a bat licence from CCW/NRW for 28 years. She holds a great crested newt licence from NRW (No: S094756/1). Heaven is also an accredited agent on the otter licence held by Chris Hall (S095628/1).

The initial Preliminary Ecological Assessment (PEA) was carried out on 11th November 2025 by ecologists Ben Box and (Bat Licence No.: S095274/1, Great Crested Newt Licence No.: S096607/1) and Heaven Kyriacou. Ben is a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM), holds bat and great crested newt survey licences from NRW and has been working with Cambrian Ecology since 2022. Prior to holding his own bat licence, he was an accredited agent on the bat licence of Chris Hall (S095271/1). Chris has been working as an independent ecologist for 20 years and has held a bat licence from CCW/NRW for 30 years. He is an associate member of CIEEM.

The previous survey and PEA by Cambrian Ecology was used to inform this report (Cambrian Ecology Ltd, 2025).

2.1 Other Survey Methods

For the methodologies deployed during the PEA, please refer to the Ardagh Metal Packaging PEA Report (Cambrian Ecology Ltd, 2025).

3. Results

The survey revealed that the habitats which will be impacted by the proposals are an area of amenity grassland with scattered trees and ornamental planting for the tank construction, an area of amenity grassland, dense scrub and immature broadleaf woodland for the extension and an area of hardstanding for the additional parking.

The building to be extended does not have any signifciant potential to support roosting bats or nesting birds.

Within the grassland areas the species present are mostly common and widespread, although what is believed to be bee orchids; (*Ophrys apifera*) were recorded within the grassland. Bee orchids are legally protected under the Wildlife and Countryside Act (1981), further survey work within the botanical survey period when orchids are in flower (June) will be required to establish the species presence and abundance. A arboricultural survey has been completed and identified 102 trees will require removal to facilitate this project (Tree 21, 2026). All trees due to be removed during the course of the works will require mitigation for their loss. No invasive non-native species (INNS) were recorded onsite.

The woodland habitat provides suitable terrestrial foraging and hibernation habitat for great crested newts (GCN); (*Triturus cristatus*) which are known to be abundant within 500m of the site based on the data search results. Due to the fact that GCN along with their habitats are protected by law, a European Protected Species (EPS) Licence will need to be obtained from Natural Resources Wales (NRW) prior to the works taking place.

The survey for protected species was negative, but this survey did identify the potential for bats to be commuting and foraging throughout the woodland. Some precautionary measures have therefore been recommended in relation to exterior lighting in relation to bats.

The data search identified a number of other terrestrial protected species to be present within the search area. There is also some potential for nesting birds to be present within the dense scrub and trees to be cleared. Some 'Reasonable Avoidance Measures' (RAMs) have been given to ensure there is no negative impact on these taxa.

There are ponds and watercourses located within 200m of the site with the closest pond located 60m away. Due to this, guidance is given to ensure there is no negative impact on this pond and potentially associated species, including otter; (*Lutra lutra*) and GCN as the result of a pollution incident.

For all details regarding mitigation and guidance please refer to the Ardagh Metal Packaging PEA Report (Cambrian Ecology Ltd, 2025).

4. Biodiversity Enhancements

4.1 Biodiversity Enhancement

Under Chapter 6 of Planning Policy Wales 12, planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This policy addresses the Section 6 Duty of the Environment (Wales) Act 2016 and results in the likelihood of planning applications being refused unless they can show a positive impact on biodiversity.

In this case biodiversity enhancements will be achieved through the erection of bird boxes and bee towers onsite.

4.1.1 *Bird Boxes*

It is recommended that five bird boxes are erected around the site. These boxes should be erected as high as possible on the northern side of mature trees present within the ownership boundary in order to prevent overheating during the summer. 'Woodcrete' or 'Woodstone' products should be used due to these materials' longevity and favourable insulative properties (see Figure 3). It is recommended that boxes with a variety of different sized openings are used in order to allow use by a variety of species.



Figure 3: Examples of appropriate bird box designs.

4.1.2 *Bee Towers*

It is recommended that two bee towers (see Figure 4) are installed in an unshaded location within a retained grass area onsite near tree planting with the holes facing south.

This product only attracts solitary bees and does not therefore cause any problems to the landowner. Solitary bees have no queen or honey to protect and as a result are non-aggressive and won't sting.



Fig 4: Example of an appropriate bee tower product.

5. Green Infrastructure Statement

Under Chapter 6 of Planning Policy Wales 12, Planning Authorities must seek to maintain and enhance biodiversity in the exercise of their functions. It is also a priority for developments in Wales to consider ecosystem resilience and green infrastructure in the development of enhancement schemes.

Many habitats and associated species are dependent on habitat connectivity to allow the freedom of movement of both animal and plant species between habitats to avoid problems such as genetic 'bottle-necking'. Habitat fragmentation and the resulting isolation of populations can be problematic for species which rely on a 'metapopulation dynamic' such as lesser horseshoe bats.

In this case, the following habitat features, species and potential issues have been identified with regard to the proposed development's relationship with the wider landscape:

- Treelines within the site provide limited connectivity with habitats in the wider landscape.
- These habitats include the Wrexham Industrial Estate and the Cefn Park Wildlife Sites.
- The species primarily potentially impacted by any fragmentation of the habitat would be bat species as records of these species were returned in the data search.
- Habitats of value to GCN are present onsite and in the wider landscape.
- The new planting and lighting guidance will ensure that connectivity for lesser horseshoe bats and other bat species across the site is retained.
- Any negative impact on GCN will be avoided through the mitigation plan and RAMs provided.
- The new bird boxes will ensure that connectivity for bird species across the site is retained and enhanced.
- The new bee towers will ensure that connectivity solitary bees across the site is retained and enhanced.
- Avoiding illumination of the boundaries and vegetation, pollution guidelines and new planting will ensure that there will be no negative impact on the green infrastructure of the proposed development site and the wider landscape.

Details regarding how each biodiversity enhancement measure improves ecosystem resilience and green infrastructure are given below-

- Bird Boxes - These features will provide high quality nesting opportunities for a variety of bird species, potentially bolstering populations of bird species present within the area. Several RSPB 'Red Listed' bird species are known to be present in the area from the results of the data search including house sparrows; (*Passer domesticus*), spotted flycatchers; (*Muscicapa striata*) and starlings; (*Sturnus vulgaris*), all of which are species which will nest in boxes.

- Bee Tower – The bee towers will provide additional nesting opportunities for the target taxon, solitary bees. By increasing nesting opportunities for these species, potentially their populations will be bolstered within area surrounding the site, again allowing for the site to ask as a 'stepping-stone' and facilitating the radiation of these species into the wider landscape. This will help to facilitate the objectives of the Welsh B-Lines initiative.

Table 1 below shows how the 'Stepwise' approach has been implemented in order to achieve the goals of Chapter 6 of the Planning Policy Wales (Updated 2023).

Table 1- How the stepwise approach will be implemented on this development.

Stepwise Step-	How the step has been implemented
1 - Avoid	Any negative impact on bats and bat movements as a result of habitat fragmentation will be avoided via the implementation of a lighting scheme which complies with the recognised, national guidance, (BCT 2018). Any negative impact on bats as a result of roost loss will be avoided as no PRFs will be affected. Any negative impact on freshwater habitats will be avoided via the implementation of the standard guidance for working in or near watercourses Any negative impact on any other designated sites will be avoided as there are no potential 'pathways of influence' between the survey site and any other protected sites. Any potential negative impact on nesting birds as a result of disturbance will be avoided through the sensitive timing of works. Any negative impact on otters and amphibian species as a result of a pollution incident will be avoided via the implementation of the standard guidance for working in or near watercourses.
2 – Minimise	Negative ecological impact as a result of habitat loss will be minimised as this will be largely restricted to an area of amenity grassland with scattered trees and ornamental planting, an area of amenity grassland, dense scrub and immature broadleaf woodland and an area of hardstanding.
3 – Mitigate	Any potential negative impact on terrestrial fauna such as hedgehogs and herpetofauna will be mitigated for via the adoption of simple precautionary measures during the development phase including storage of materials and obtaining a GCN EPS licence. Any negative impact on terrestrial fauna as the result of insensitive vegetation clearance will be avoided through adherence to the guidance for vegetation removal given in Section 13.1. Any potential negative impact nesting birds as a result of loss of nesting opportunities will be mitigated against via the planting of new trees.
4 – Onsite compensate	The loss of the 102 trees will be compensated for via appropriate new planting. This will also preserve habitat connectivity across the site.
5 – Offsite compensate	N/A

6. References

Bat Conservation Trust (2018) Bats and artificial lighting in the UK

Environment Wales Act (2021)

Wildlife and Countryside Act (1981)

Planning Policy Wales v12 (2023)

English Nature (2001) Great Crested Newt Mitigation Guidelines

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great Crested Newt Conservation Handbook, Froglife, Halesworth

Preliminary Ecological Assessment Report, Ardagh Metal Packaging, Cambrian Ecology, (2025).

7. Appendices

7.1 Site photographic record

7.1.1 *Proposed New Tanks Habitat*



Amenity grassland.



Ornamental planting.



Potential bee orchids.

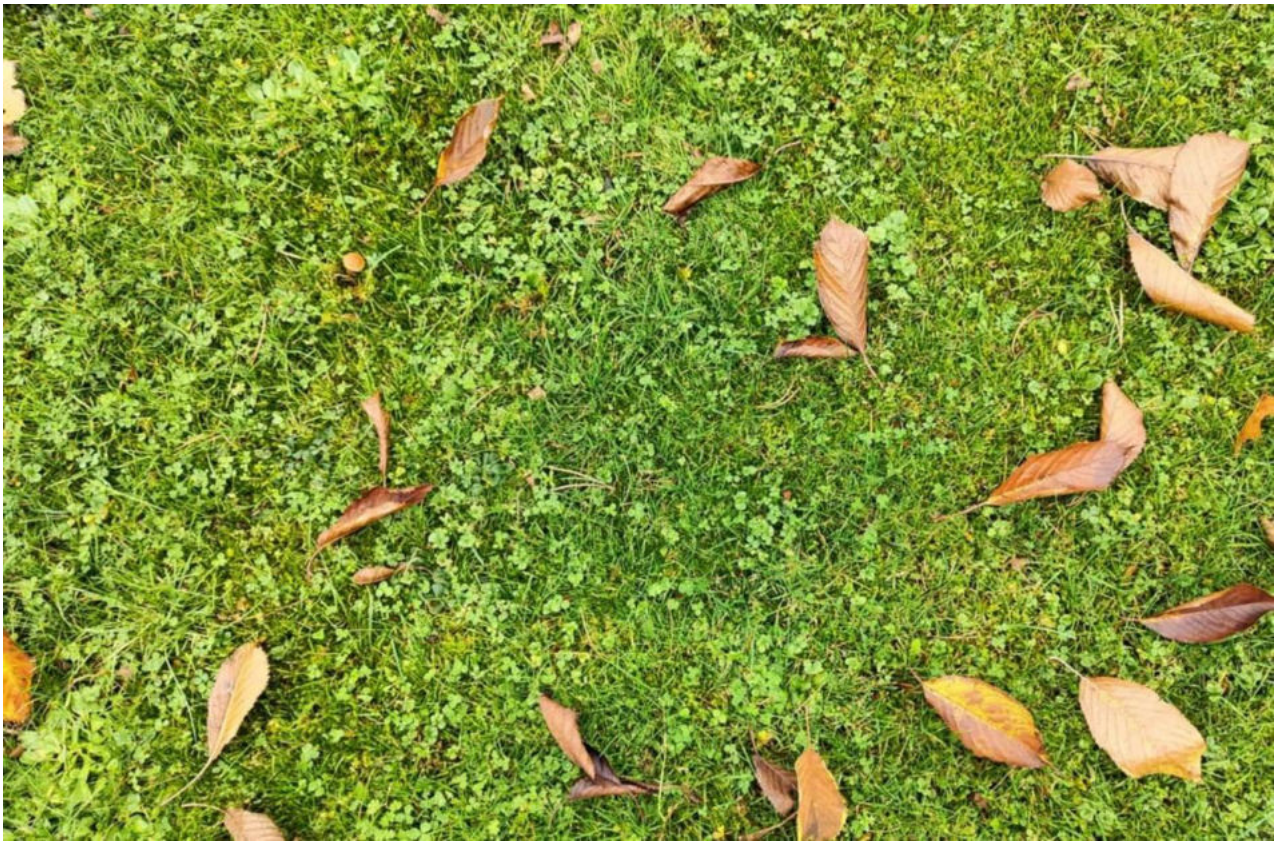


Above and below: scattered tree onsite to be removed.





Scattered tree onsite to be removed.



Amenity grassland sward.

7.1.2 *Proposed New Extension Habitat*



Amenity grassland.



Amenity grassland.



Amenity grassland.



Crack within soil which is potential GCN hibernacula.



Amenity grassland sward.



Immature broadleaf woodland to be lost.



Above and below: immature broadleaf woodland to be lost.





Above and below: immature broadleaf woodland to be lost.





Above and below: immature broadleaf woodland to be lost.





Dense scrub.



Affected building elevations.



Affected building elevations.

7.2 Review Table

Name	**Task**	**Date**
Heaven Kyriacou	Author	02.06.2026
Ben Box	Reviewing	11.06.2026