



Bringing Together Over 30 Years of
Ecological Excellence

Tyrer Ecological Consultants Ltd, Roselands, Suite 1, 3 Cross Green, Formby, L37 4BH

Net Biodiversity Benefit Plan

May 2023

Wrexham Building & Joinery Ltd
Rivulet Road
Wrexham
LL13 8DY

National Grid Ref: SJ34094988



Document Title	Net Biodiversity Benefit Plan
Issue no.	1.0
Prepared for	Blueprint Architectural Services
Prepared by	Tyrer Ecological Consultants Ltd

Author	Mr. H. Mulligan Qualifying CIEEM
Reviewed by	Mr. B. Richards Qualifying CIEEM
Review date	11/05/2023
Approved by	Mrs. K. Wilding CEnv MIEMA ACIEEM
Date of Issue	11/05/2023
Supporting Doc	Inspection & Assessment in Relation to Bats & Breeding Birds (Tyrer Ecological Consultants Ltd, 2023)

Document Context

As part of an ongoing planning application at Wrexham Building & Joinery Ltd in Wrexham (Application Reference Number: **P/2023/0082**), (termed as 'the Site' and/or 'application site' in this report), Tyrer Ecological Consultants Ltd were commissioned to design a Net Biodiversity Benefit Plan (NBBP), to accompany an Inspection and Assessment in Relation to Bats and Breeding Birds report following a site visit in April 2023.

Both this NBBP and the Bats and Breeding Birds report were commissioned by Blueprint Architectural Services; proposals involve the demolition of numerous buildings onsite followed by the erection of a new structure, alongside the retention and renovation of one building (see **Figure 1**).



Figure 1 – Existing and proposed site plans (Source: Blueprint Architectural Services Ltd)

Wales - Net Biodiversity Benefit (NBB)

The net-benefits for biodiversity approach by Welsh Government has the same intent as England who have adopted a metric-based approach – ultimately to deliver an overall improvement in biodiversity – but Wales does not utilise a metric. Instead, it puts the emphasis on proactive consideration of biodiversity and wider ecosystem benefits within a placemaking context early in the design process. The aim is that the planning system will encourage the use of high calibre ecological expertise and early discussions with planning teams to design developments on a case-by-case basis that positively impact ecosystem resilience. There is no mandatory length of time that management is required for in Wales.

Broadly speaking the aim is to generate a better outcome for the site than if it was left undeveloped. Failing to provide such a benefit is a valid reason for planning permission refusal.

Every planning application in Wales, regardless of size, must not only mitigate any negative impacts of the development, but also have a positive benefit for biodiversity which will be in place for the lifetime of the development.

Proposed Plan

The proposals are minor, low scale and low magnitude and will only affect hardstanding (~0.13 hectares), with access already in place from Rivulet Road and the areas to be used by working contractors during the construction phase, already developed land / hardstanding. There will therefore be no loss of any habitats of value, though there is a line of trees directly adjacent to the north along the river Gwenfro.

The proposals include planting a native mixed species hedge along the northern site boundary, creating a new linear habitat and to manage it favourably into the long term. In addition, to enhance the site for bats, breeding birds and invertebrates, some enhancement measures including a bat box, a bird box and an insect brick are proposed to be incorporated into the proposed plans.

See **Figure 2** for visual aid. Instructions are provided below.



Figure 2 – Proposed location of new mixed sp. hedgerow planting & enhancement provisions
(Adapted from Blueprint Architectural Services)

Further *optional* general enhancement measures have also been provided in **Appendix I**.

Mixed species hedge creation

Species to plant

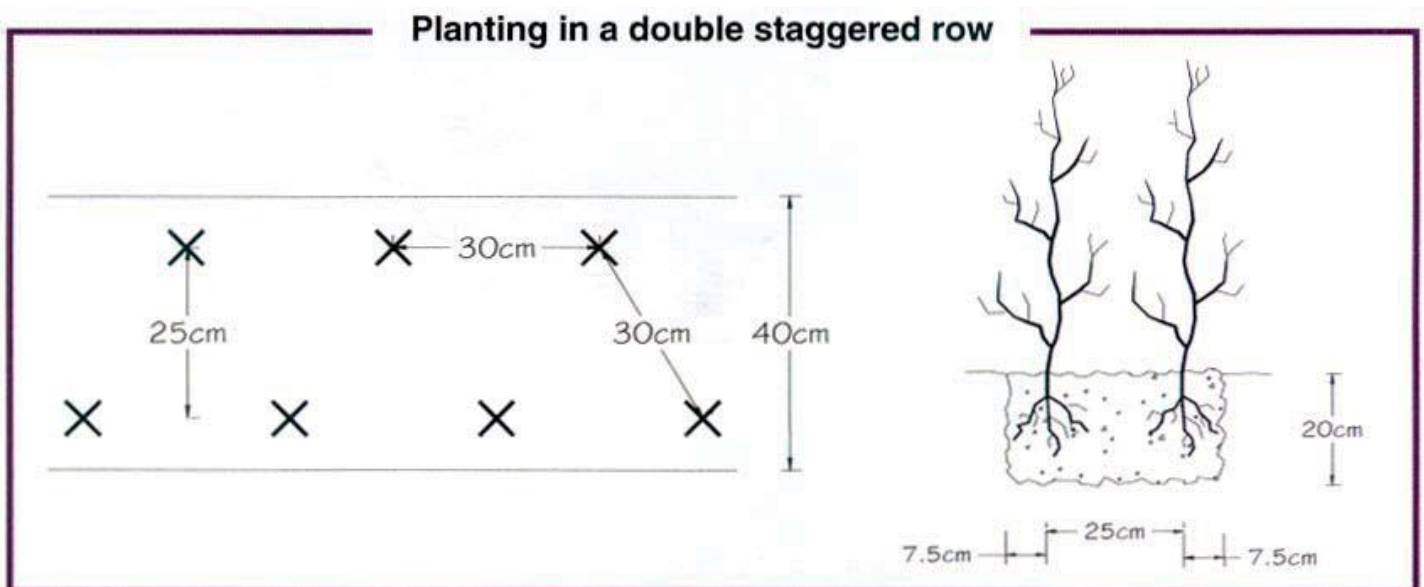
- 30% Holly (*Ilex aquifolium*),
- 40% Hawthorn (*Crataegus monogyna*),
- 30% Blackthorn (*Prunus spinosa*).

Preparation

- The best time for planting is late autumn, after mid-November, although anytime between October and March is acceptable, provided the ground is not frozen or flooded.
- Create a 1m wide, weed free strip either by ploughing, digging or in limited cases, treating with a systemic herbicide.
- Ensure the bare roots of the plants do not dry out before planting.

Planting

- Plants should be sourced locally and supplied in accordance with the Horticultural Trade Association's National Plant specification and be sourced from a nursery that is a Member of the Horticultural Trades Association Nursery Certification Scheme.
- Plant in trenches large enough to take full spread of roots (20cm depth x 40cm width).
- Back fill with a previously prepared mixture of topsoil excavated from the pit, together with suitable compost and additional topsoil as required.
- Plant in a double staggered row approximately 30cm apart (see Image below).
- Set out plants evenly using the plan below as a guide, 6 plants per m.
- The base of the hedge should be mulched with a 50-75mm layer of composted bark to stop weed growth and retain moisture in the soil.
- Where necessary, protect plants from damage and grazing by using protective tubes or spiral guards.



Maintenance

- Water the hedge for the first summer or any dry period in the 1st 12 months.
- Maintain weed control for at least 2 seasons.
- Replace any stock that dies within the first year.

- To encourage wildlife, trim the hedgerow no more than every 2nd year. This allows the shrubs and trees to produce more flowers, nuts and berries.
- Never trim the hedgerow between the beginning of March and the end of August when it would be harmful to invertebrates and nesting birds. The ideal time to trim the hedgerow is between January and February.

Species Enhancement Measures

Wall-mounted bat box:

The Beaumaris bat box is made entirely from Woodstone, a robust material comprising concrete and wood fibres. The Beaumaris box has a single narrow cavity which makes it suitable for crevice roosting bats such as the common pipistrelle, soprano pipistrelle, nathusius' pipistrelle, Brandt's bat and whiskered bat. The interior of the box has a rough surface for bats to cling to and the front of the box features a subtle but attractive imprint of a bat in flight.

Suitable for attaching to external walls and available in two sizes: the Midi and the Maxi.

For more information see www.nhbs.com/beaumaris-woodstone-bat-box



Sparrow terrace:

The Sparrow Terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families.

The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of buildings.

For more information see: www.nhbs.com/title/174850/1sp-schwegler-sparrow-terrace



Bee Bricks:

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used. Available in a choice of four colours: white grey, dark grey, yellow and red.



Conclusions

Tyrer Ecological Consultants Ltd can confirm that the contents of this document have been formulated following a detailed study of the Site and consideration of multiple options before finalising the Net Biodiversity Benefit Plan based on the scale of impacts, applying proportionality, consideration of ecological function, practicality and difficulty of delivery and general appropriateness given the nature of the proposals.

The information contained in this document has been presented using best practice industry knowledge and is benchmarked by the long-standing experience of the Ecologists affiliated with the company.

Completed by H. Mulligan Qualifying CIEEM (10th May 2023)



Junior Ecologist at Tyrer Ecological Consultants Ltd

Appendix I – Optional Enhancement

Bats



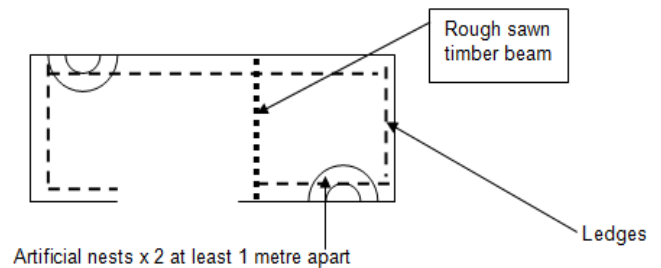
- Cardinal bat box

The Cardinal Bat Box incorporates three separate chambers with laddered entrance holes to each direction.

Nesting Birds

Swallows

Creation of an open type shed (pitched or flat roof) as shown below would replicate conditions of nest sites at the site and offer swallows a means of nesting following summer migration.



- Artificial swallow nest cups can be purchased online and placed inside.

Specification

- Sheds can be cited in most areas of the site that allow swallows to fly inside/outside freely,
- Recommended minimum of 6.0' x 8.0' x 3.0' metres (length x width x height),
- Two Swallow cups to be spaced compensate for two cups lost, and so on.

Enhancement for Invertebrates

- Custom Invertebrate hotels



e.g.

E.g. - www.amazon.co.uk/Large-Wooden-Insect-Hotel-House/

Alternatively, bug hotels can be created easily using raw materials on site.



Custom insect hotel using existing materials on site

- National Trust Bee Log

<https://shop.nationaltrust.org.uk/national-trust-bee-log-wicken-fen-collection>

