

Green Infrastructure Assessment & Ecological Enhancement

Construction of one two-storey dwelling and associated works.

Plot 20 Forest Lodge Lane Cwmavon Port Talbot

LPA Ref - P2024/0401

August 2024

PHONE

MOB PHONE

EMAIL

Background

On 11th October 2023¹ the Welsh Government issued updated National Planning Policy for chapter 6 of Planning Policy Wales.

The updated policy guidance recognises the value of green infrastructure within the built environment. In order to facilitate a quality built environment enhanced by integrated green infrastructure all planning applications must now include a green infrastructure statement.

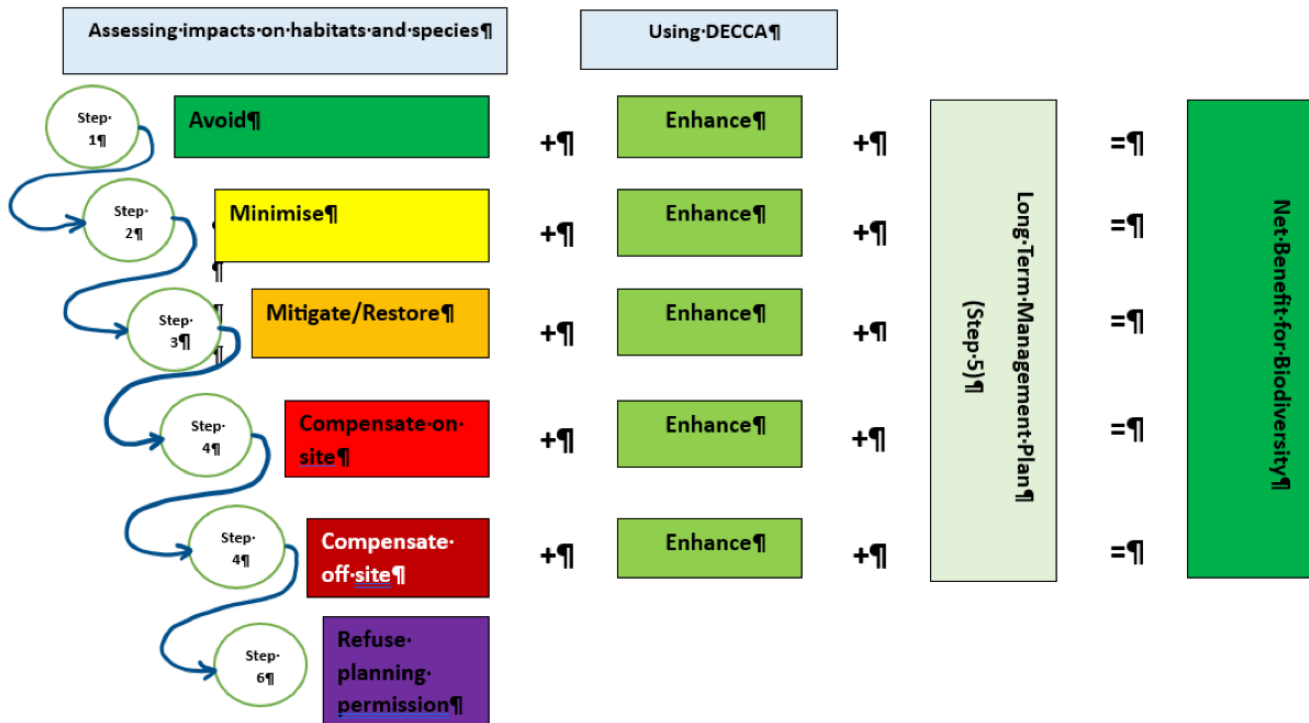
“6.2.6 A green infrastructure statement should be submitted with all planning applications. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. The green infrastructure statement will be an effective way of demonstrating positive multi- functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.21) has been applied.”

Figure 1 below sets out the summary of the stepwise approach as set out in the Annex² to the published advice

¹ <https://www.gov.wales/sites/default/files/publications/2023-10/addressing-the-nature-emergency-through-the-planning-system.pdf>

² <https://www.gov.wales/sites/default/files/publications/2023-10/annex-addressing-the-nature-emergency-through-the-planning-system.pdf>

Figure 1



Proposal

The proposal is for the construction of a two storey detached dwelling

The Site

The application site consists of an area of land of approximately 870m². The site is currently a construction yard for the wider site and has been for the last 5 -10 years. The site contains waste material, cement mixer, hardcore and a steel container.

Given the materials and activity on the site there is likely to be no important ecological features.

Photo 1



Photo 2



Photo 3



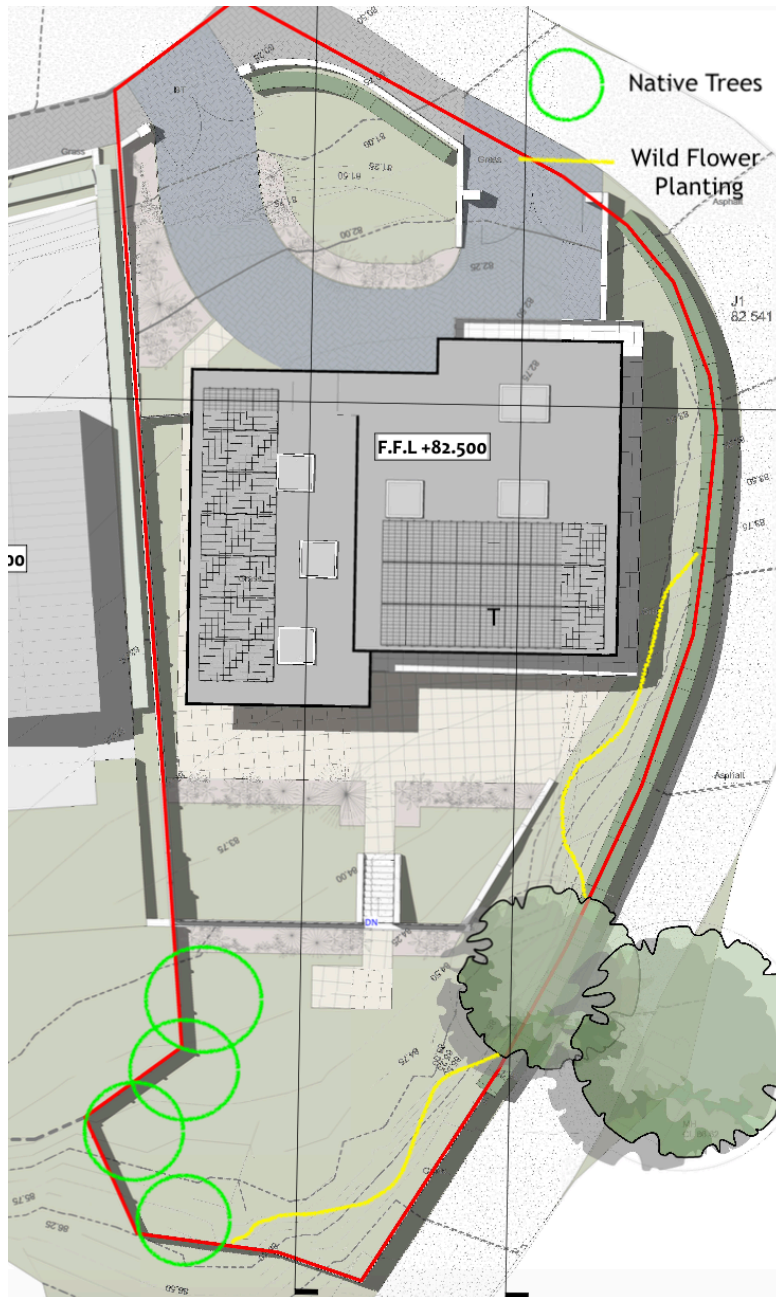
Proposed Enhancement

It is accepted that Future Wales now requires ecological enhancement however, it is submitted that any ecological enhancement must be proportional to the development proposed.

Given the scale of the proposal it is considered that the provision of a bird and bat boxes, native trees and wildlife friendly landscaping within the site will provide adequate ecological enhancement.

Figure 2 below provided an illustrative ecological enhancement proposal.

Figure 2



Bird Boxes

Boxes to attract garden birds and woodland breeding species such as tits, nuthatch, redstart and pied flycatcher can be placed in gardens, orchards, woodlands and a wide variety of other habitats. The species of birds attracted to the box will depend upon the size of the entrance hole (see table below).

Boxes should be fixed two to five metres up a tree or wall, out of the reach of predators such as domestic cats. Unless there are trees or buildings, which give permanent shelter, it is best facing between north and east.

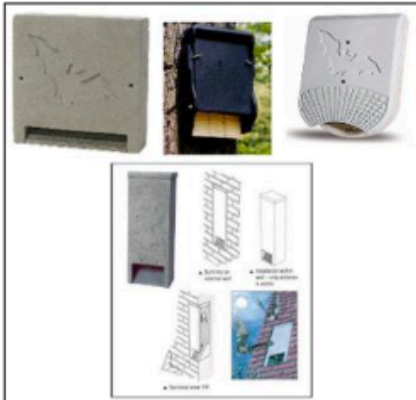
Box Specifications

General		
Example	Description	Picture
Schwegler No. 1B General Purpose Nest box	www.arkwildlife.co.uk Suitable for various garden and woodland birds, created with different sized entrance holes to avoid competition between species. Other variations (e.g. 2M) can be free hanging, to deter predators	
Entrance Hole	Species	

26mm	Blue-, Marsh-, Coal- and Crested Tit, possibly Wren. All other species are prevented from using the nest box due to this smaller entrance hole.
32mm	Great-, Blue-, Marsh-, Coal- and Crested Tit, Redstart, Nuthatch, Pied Flycatcher, Tree and House Sparrows.
Oval	Redstart; also used by species that nest in the diameter 32 mm boxes. However, because more light enters the brood chamber, it is preferred by Redstarts.

Under the Wildlife and Countryside Act 1981 it is an offence to disturb breeding birds and therefore annual cleaning cannot be undertaken between the months of March and September inclusive. Bird nest boxes should be cleaned in October to prevent the build-up of nest parasites in the boxes whilst avoiding the risk of disturbing birds using the boxes as a roost site during the cold winter months. All nesting material and other debris should be removed from the box. Ideally, it should then be scrubbed clean with boiling water to kill any parasites (avoid using any chemicals). Once the box is clean, it should be left to dry out thoroughly. Bird boxes should be left up over winter as they can provide useful roosting sites for birds in bad weather.

Bat Boxes

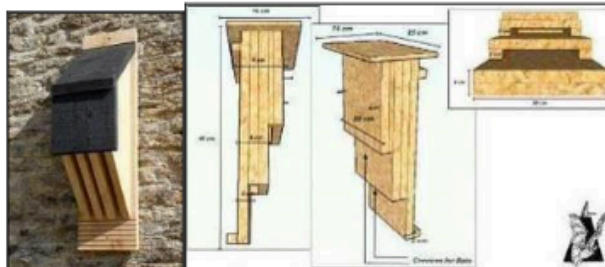


Top: From left to right, the in-wall Schwegler 1FE, the tree mounted 1FF and the multi season 1WQ. The bottom image shows the 1FR in situ.



Right: The Harlech WoodStone bat box offers excellent insulation with a minimum of condensation for roosting bats. WoodStone® is a mixture of sawdust from FSC wood sources and concrete, and it is designed to last for years. It is breathable so there will be no problems with condensation and WoodStone

be no problems with condensation and Woodstone maintains a consistent temperature inside, providing excellent insulation for roosting bats. **Left:** 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 should be sited as high up on the façade as possible, at a height of at least 3m from the ground. Avoid siting under artificial lights. Bats prefer to change roosts to benefit from varying ambient temperatures, so bat boxes should ideally be clustered in small groups. **Below:** The Vincent Pro bat box (left) and the Kent Bat Box (right)



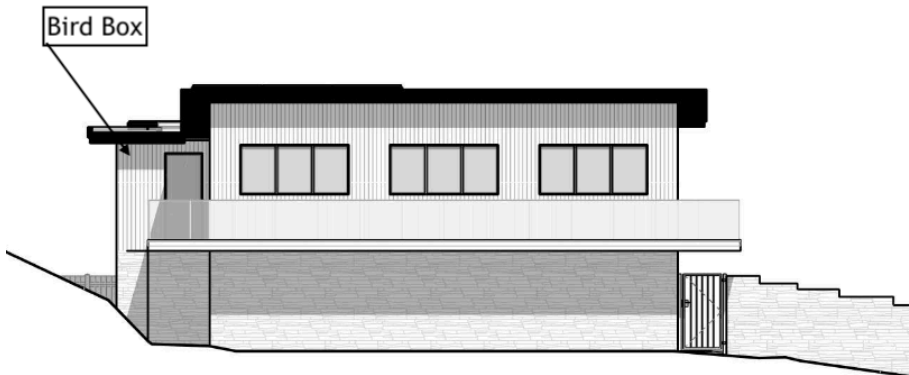
Box Locations

Bat Box



PLOT 20 (VACANT)

Bird Box



Side Elevation

Site lighting and dark corridors

Measures will be taken to minimise light pollution to reduce any impact on nocturnal fauna such as bats and moths. Any lighting within the rear garden will be in accordance with the guidance provided by the Bat Conservation Trust (BCT 2018). Appropriate ground facing, energy-saving lighting will be used, on timers. There will be no light spillage into landscape areas such trees and hedgerows on site will not be affected that's allowing dark corridors to be maintained for Nocturnal wildlife.

Wild Flower Specification

Wildflower planting will be undertaken with as shown in **Figure 1** above

Method - New and re-spread top soil would be lightly harrowed and raked to create a moderately fine tilth. No fertilizer would be added to any of these planting areas. Areas will be seeded either by hand or using a light tractor mounted spinner or drill with drills at 5 cm centres, 5 mm maximum depth immediately after preparation which would ideally occur in late summer (August-September). The seed rate will be 4g perm²

The seed mixture in new soil areas with comprised of 80:20 mix of native grass and wild flowers as set out in **Table 1** below.

Table 1

Species	% of Total by weight	Notes
Grasses		Note: <u>Not</u> <i>Agrostis castellana</i>
<i>Agrostis capillaris</i>	30	Low fertility strains only, eg 'Arletta', 'Tracenta' from 2010 STRI Seed Guide
<i>Cynosurus cristatus</i>	20	
<i>Festuca rubra</i> spp <i>rubra</i> ; OR:)		Low fertility strains only, eg 'Boreal', 'Franklin'
<i>Festuca rubra</i> spp <i>commutata</i> ; OR:)	20	Low fertility strains only, eg 'Agram', 'Banner', 'Koket', 'Wintergreen' (or eg 'Lifalla', 'Raymond', 'Wilma' from 2010 STRI Guide)
<i>Festuca rubra</i> spp <i>litoralis</i>)		Low fertility strains only, eg 'Dawson', 'Logro', 'Merlin', 'Oriflame' (or eg 'Lovisa', 'Bornado', 'Garance' from 2010 STRI Guide)
<i>Anthoxanthum odoratum</i>	5	
<i>Alopecurus pratensis</i>	5	
Wildflowers		
<i>Achillea millefolium</i>)		
<i>Centaurea nigra</i>)		
<i>Hypochoeris radicata</i>)		
<i>Hypericum perforatum</i>)		
<i>Lathyrus pratense</i>)		
<i>Leontodon autumnalis</i>)		
<i>Leucanthemum vulgare</i>)		
<i>Lotus corniculatus</i>)		
<i>Luzula campestris</i>)		
<i>Plantago lanceolata</i>)		
<i>Medicago lupulina</i>)	20	Any six species (minimum) in equal quantities, to a maximum of 15 species. Fodder species (eg legumes) to be supplied as low fertility non-fodder strains only
<i>Plantago lanceolata</i>)		
<i>Potentilla anserina</i>)		
<i>Primula vulgaris</i>)		
<i>Prunella vulgaris</i>)		
<i>Ranunculus acris</i>)		
<i>Rhinanthus minor</i>)		
<i>Trifolium campestre</i>)		
<i>Trifolium dubium</i>)		
<i>Trifolium pratense</i>)		
<i>Veronica chamaedrys</i>)		
<i>Vicia cracca</i>)		
<i>Vicia sativa</i>)		
<i>Vicia sepium</i>)		

Where a given species listed is not available a suitable alternative should be agreed with the supervising Ecologist. All seed material should be Welsh or at least UK native origin. Seed suppliers should be signatories to the *flora locale* code of practice for collectors, growers and suppliers of native plants and seeds.

Implementation

- Bird/Bat Boxes - Within one month of the completion of works
- Trees and Landscaping – Within 12 months of occupation

GIA Assessment

Table 2 below sets out the stepwise approach in assessing impacts of a development on habitats and the species

Table 2

	Steps	Assessment	Enhancement	Long Term Maintenance	Net Benefits
1.	Avoid	Yes The Proposed development is on previously developed land which has in the past benefited from planning permission. Whilst vegetated the area has no important ecological features. The proposal minimises damage to any biodiversity and as such accords with the <i>stepwise</i> approach set out in the published advice.	Yes Bird box to be provided Trees and Landscaping	Yes Cleaning as set out above. To be set out in landscaping scheme	Yes
2.	Minimise	Na	Na	Na	Na
3.	Mitigate/restore	Na	Na	Na	Na
4.	Compensate on site	Na	Na	Na	Na
5.	Compensate offsite	Na	Na	Na	Na

Conclusion

Applying the step-by-step approach, the assessment indicates that:

- The development avoids any damage to biodiversity
- The proposal provides an ecological enhancement proportionate to the scale of the development.
- The proposed ecological enhancement will be maintained
- There is a net benefit to biodiversity as a result of the development.