

Ecology Statement

**78 Leyshon Road
Gwaun Cae Gurwen
Swansea
SA18 1EN**

PHONE

MOB PHONE

EMAIL

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1.0 Introduction

- 1.1 This document has been prepared as a supporting statement in relation to the development of the above site. The application is in outline with all matters reserved. Given that the Final location of the dwelling is the subject of a detailed application this appraisal will address the broad principals to be adopted for the site.
- 1.2 The application site is located within the settlement of Gwaun Cae Gurwen as shown in **Figure 1**

Figure 1



- 1.3 The application site forms part of the mature side garden of 78 Leyshon Road.
- 1.4 The application is in outline with all matters reserved. In order to facilitate the development a short section of the existing concrete block wall will be removed. No buildings or trees are to be removed as part of the development.

2.0 Site Surveys

- 2.1 The application site is a section of mature garden that forms part of the side/rear amenity space of the 78 Leyshon road. The majority of the application site consist of lawn with a small central section of mature landscaping.
- 2.2 Photographs of the site are set out below.

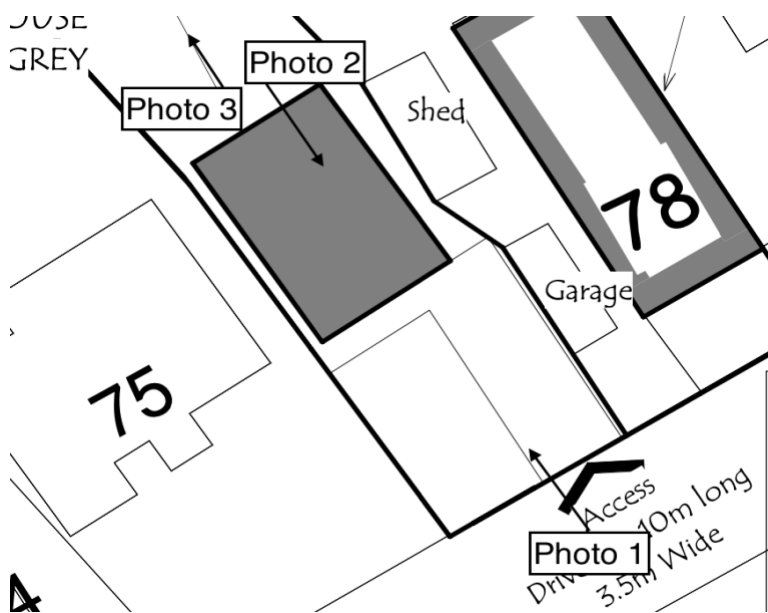


Photo 1



Photo 2



Photo 3



3.0 Potential Ecological Constraints

- 3.1 There are no watercourse within or adjacent the site. There is therefore no potential for impacts to watercourses during construction. Notwithstanding the above the development will be the subject of a Construction Management Plan to mitigate against potentially off site impacts.
- 3.2 The development could potentially have adverse impacts on protected species, namely common reptiles and nesting birds. These species may utilise the voids within small piles of stone present within the site. These impacts are, however, readily amenable to mitigation.
- 3.3 There are no visible invasive species on the site.

4.0 Wildlife Protection

4.1 Nesting birds

- 4.2 Cutting back of the existing boundary hedge should avoid the bird-nesting season which runs approximately from March to August inclusive. If it is not practical to undertake the works outside of the nesting season, the works must be preceded by a check for any bird-nesting activity, and where any such activity is found, work will be suspended until the current nesting cycle has been completed. **This is a statutory requirement.**

4.3 Reptiles & Amphibians

- 4.4 Piles of stone within the site have potential for sheltering and hibernating reptiles and amphibians. If the stones require removal, it is recommended that this activity be carried out, outside the hibernation period (i.e. November to March).

5.0 Biodiversity Enhancement Strategy

Habitat Creation & Enhancement

- 5.1 Plants used within the planting scheme for the development should be native 'wild' species of local provenance, in order to maximise their future ecological value particularly for pollinators, including bees, butterflies and moths.
- 5.2 Open / landscaped areas, and new road verges, will incorporate wildflower seed mixes into their planting schemes
- 5.3 Suitable surfaces (especially flat-roofed areas) of the new development should be considered for implementation of green wall and green roof technologies. Advice and design guidance is available via websites such as Living Roofs (<https://livingroofs.org/>).

- 5.4 Bat boxes – Recommended Bat boxes are set out in the appendix
- 5.5 Bird Boxes - To enhance and or compensate for the loss of potential bird nesting habitat, bird boxes should be erected on the building. The boxes could be of a design which is primarily aimed at declining synanthropic bird species, such as house sparrow and starling. General-purpose bird boxes (i.e. 'tit-type' entry-hole and open-fronted 'robin-type') may also be provided.
- 5.6 Bird boxes should be sited at eaves height or higher; they can be sited directly under the eaves, away from windows and doors, on northern/western elevations.
- 5.7 The bird boxes will be of appropriate durable (e.g. 'woodcrete') designs and will either be built into the external walls or installed under the eaves of the new building in locations where they have good access to adjacent habitats, minimal disturbance, and will cause least inconvenience to the house occupants (e.g. away from windows, doors and parking areas etc.).
- 5.8 Bee Walls- 'Bee-walls' comprising low constructions of various materials, which are suitable for burrowing into or occupation by breeding and sheltering solitary bees and wasps, should be created in suitable sunlit locations, preferably near to good nectar sources Plan. Various designs are available or can be created.
- 5.9 Fauna Access Gaps- Where fencing is to be erected on the site, panels will be provided with fauna access gaps at the base which are sufficient to allow passage by small mammals such as hedgehog (i.e. 130mm wide by 130mm long square) or a continuous gap at the base of the fence of 130mm tall. At least one access gap is required in every run of fence, with at least one in each garden. The number and location of faunal access gaps should be advised in liaison with an ecologist once a

fencing plan has been comprised. If any garden walls are incorporated into the new development, they should also have 130mm² gaps at the base.

- 5.10 Site Lighting & Dark Corridors-Measures will be taken to minimise light pollution to reduce any impact on nocturnal fauna such as bats and moths. The lighting design for the developed site will be in accordance with the guidance provided by the Bat Conservation Trust (BCT 2018). There will be no lamp posts on the site. Appropriate ground-facing, energy saving lighting will be used, on timers. There will be no light spillage into the landscaped areas, so trees and hedgerows on the site will not be affected, allowing dark corridors to be maintained for nocturnal wildlife.

6.0 Appendix - Planting Species

Semi-Natural Grasslands

New and re-spread topsoil's will be lightly harrowed and raked to create a moderately fine tilth. No fertiliser will be added to any of these areas. Areas will be seeded either by hand (broadcasting) or using a light tractor-mounted spinner or drill with drills at 5cm centres, 5mm maximum depth, immediately after preparation which should ideally occur in late summer (i.e. Aug-Sep). The seed rate will be 4g/m² (i.e. 40kg/ha).

The seed mixture in new soil areas will comprise an 80:20 mix of native grass to native wildflower seed. Species will be as follows:

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 above is not available a suitable alternative should be agreed with the supervising ecologist.

All seed material should be of 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 seed.

Initial grass mowing should take place at 6-8 weeks after sowing, with the arising cuttings collected and disposed of off-site. This should be repeated at two-monthly intervals, with the last cut being made in October. In the second year after sowing and in subsequent years, the grass should be mown twice per annum, comprising a first cut to 50mm in April with a second cut to 100mm in September. All arising cuttings should be collected and removed from the site for disposal.

Trees and Shrubs

All planting stock will be of native species which are indigenous to the region and will be of Welsh, or at least UK, provenance.

Planting will be carried out using 600mm bare-rooted transplants (1+1) planted at 150mm centres in two staggered (i.e. offset) rows 250mm apart, in spiral plastic guards (rabbit/vole protection). Standard tree aftercare will be applied.

<i>Canopy Species</i>		%age
<i>Crataegus monogyna</i>	Common hawthorn	30
<i>Prunus spinosa</i>	Blackthorn	20
<i>Corylus avellana</i>	Hazel	20
<i>Acer campestre</i>	Field maple	)
<i>Cornus sanguinea</i>	Dogwood	)
<i>Fraxinus excelsior</i>	Ash	)
<i>Ilex aquifolium</i>	Holly	)
<i>Prunus avium</i>	Wild cherry	)
<i>Quercus robur</i>	Pedunculate oak	) 30
<i>Rosa canina</i>	Common dog-rose	)
<i>Salix caprea</i>	Goat willow	)
<i>Salix cinerea</i>	Grey willow	)
<i>Sorbus aucuparia</i>	Rowan	)
<i>Viburnum opulus</i>	Guelder rose	)
<i>Climbers</i>		
<i>Clematis vitalba</i>	Traveller's-joy	) Alternate at 3m intervals
<i>Lonicera periclymenum</i>	Honeysuckle	)
<i>Solanum dulcamara</i>	Bittersweet	)
<i>Tamus communis</i>	Black bryony	)

Bat and Birds Boxes

EXAMPLES OF BOXES FOR SYNANTHROPIC BIRD SPECIES



Schwegler 1SP House Sparrow Terrace



Schwegler 1BPN Integrated Starling Box



Vivara Woodstone House Martin Cups



Vivara Woodstone Swallow Cup



Schwegler 11 House Martin Cups



Ibstock 2 Integrated Swift Box



Ecosurv Integrated Swift Box



Vivara Woodstone Integrated House Sparrow Box



Vivara Woodstone Integrated Swift Box



Vivara Woodstone Under-Eave Swift Box

EXAMPLES OF NON-INTEGRATED BIRD BOXES FOR TREES AND BUILDINGS

Suspended Designs



Schwegler 1B
General box



Schwegler 2H open-front
'robin' box



Schwegler 5
'large owl' box



Schwegler 1CGA
'small owl' box



Schwegler 20
'starling' box



Schwegler 28 'kestrel' box



Schwegler 5KL 'nuthatch' box

Surface-mounted Designs



Schwegler 1MR general box



Vivara Pro open-front
'robin' box



Vivara Pro ova open-front
'robin' box



Vivara Pro 'starling' box



Vivara Pro 28/32mm
general box



Vivara Pro 28/32mm
oval general box



Schwegler 2F General Box



Schwegler 1FD Nursery Box



Schwegler 1FS Nursery Box (Large)

Schwegler 1FW Winter Box
(Very large box)Schwegler 2FN
Noctule BoxSchwegler 2F DFP
Daubenton's Bat Box

Miramar General Box

Tree or building-mounted boxes



Schwegler 1FF General Box



Schwegler 1FQ Decorative Box



Schwegler 1FFH General Box



Vivara Woodstone Low Profile Box

NHBS Cavity Box
(Brown Long-Eared Bat Box)

NHBS Crevice Box