

Land To The South East Of 10 Penrose Ecological Mitigation and Enhancement Plan

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A report by

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Report details

Site name: Land To The South East Of 10 Penrose
Site address: Penrose Lane, St Ervan, PL27 7TB
Grid reference: SW 877 706
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Declaration of compliance

Code of Professional Conduct

The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Table of contents

1. Introduction 4
 1.1. Background..... 4
2. New Cornish hedgerow 5
3. Bee bricks and bat tubes 5
 3.1. Bee bricks 5
 3.2. Bat tubes..... 6
4. Protection of retained hedgerows during the construction phase..... 7
5. Precautionary working methods during removal of a 2 metre section of hedgerow 7
6. Control of Cotoneaster 8
7. Additional enhancement..... 8

1. Introduction

1.1. Background

Western Ecology has been commissioned to complete an Ecological Mitigation and Enhancement Plan for an area of land to south of 10 Penrose. This relates to planning condition 4, as follows:

The first reserved matters application shall provide full ecological mitigation and enhancement measures (if necessary based on up-to-date survey effort) that builds on those specified in Chapter 5 of the Bright Environment Ecological Appraisal dated 2nd July 2020. The approved measures shall be implemented within a timetable that had been approved in writing by the local planning authority.

Reason: In order to ensure mitigation ensuring protected species are not negatively affected by the proposal is carried out to a satisfactory level in accordance with policy 23 of the Cornwall Local Plan Strategic Policies 2010-2030.

Recommendations within chapter 5 of the Bright Environment Ecological Appraisal comprise:

- 20 metres of new Cornish hedgebank along the northern site boundary
- Bee brick and bat box for each new dwelling
- Protection of retained hedgerows during the construction phase
- Precautionary working methods during removal of a 2 metre section of hedgerow
- Control of cotoneaster

The strategy within this report provides detail on these recommendations along with the additional enhancement of a species-rich lawn that will ensure overall site enhancement for wildlife.

2. New Cornish hedgerow

A new section of Cornish hedgebank with hedgerow of native shrubs will be created at the northern site boundary (Map 1).

Construction will conform to Cornwall Council Highways Specification series 300 and will re-use stone and soil arising from the creation of the new access into site.

The hedgebank will be planted with a hedgerow of native shrubs of local provenance comprising Hawthorn (40%), Blackthorn (30%), Hazel (20%) and Dog Rose (10%).

New hedgerow shrubs will be notch planted at 375mm centres in double staggered row at 6N° plants per linear metre.

All hedgerow shrub plantings will be planted in random mix of same species groups of to form clusters of plants.

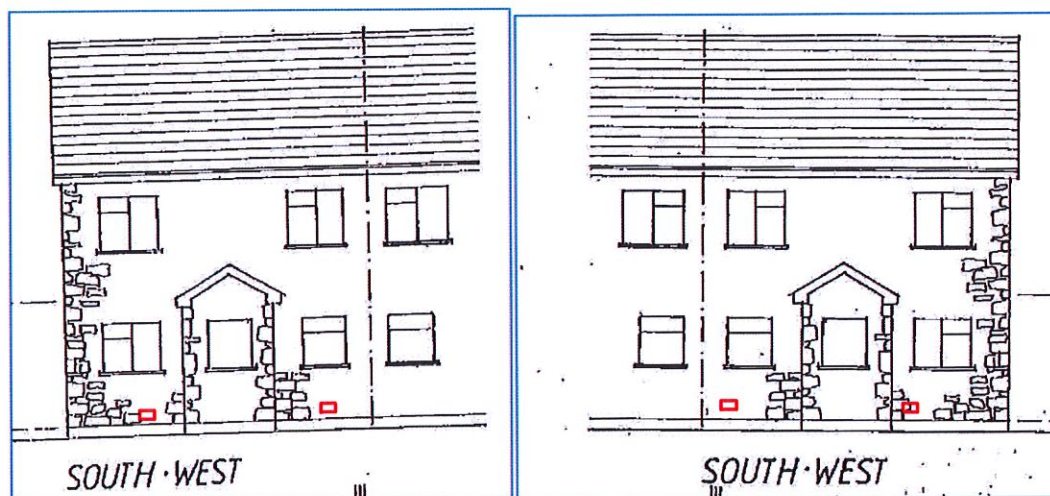
3. Bee bricks and bat tubes

3.1. Bee bricks

Two bee bricks per building (Figure 1) will be fitted 1 to 2 metres above ground level on the south-western elevations of buildings (Plan 1). These attract solitary bees and wasps.



Figure 1. A bee brick



Plan 1. Location of bee bricks outlined in red

3.2. Bat tubes

1FR Schwegler bat boxes or similar (Figure 2) will be attached to the north western gable of House 1 (Plan 2) and the south eastern gable of House 2 (Plan 3) 3-10 under the guidance of a suitably qualified ecologist.

The 1FR bat box is designed to be installed on the external walls of buildings, either flush or beneath a rendered surface. This makes it ideal for situations where you wish the box to be discrete as only the entrance hole will be visible. It can also be painted to match the building with an air permeable paint if desired.

The 1FR is specifically designed to meet the characteristic behavioural requirements of the types of bats that inhabit buildings. It has an integrated wooden panel onto which bats can cling and a ridged entrance slope which makes it easy for them to enter and leave the box safely. The design maintains excellent climatic conditions inside providing bats with a safe and stable environment in which to roost and it requires no maintenance because droppings fall out of the entrance ramp (taken from <https://www.nhbs.com/1fr-schwegler-bat-tube>).

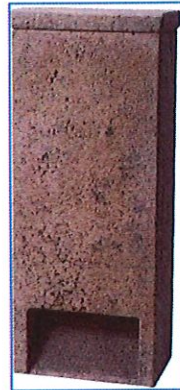
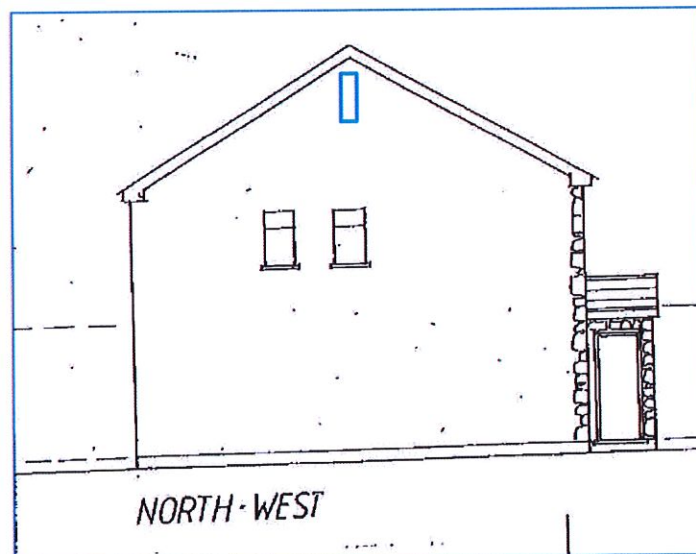
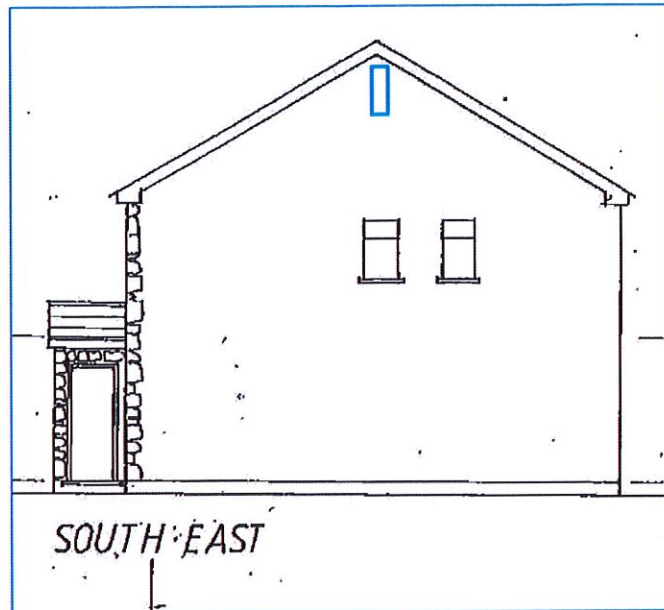


Figure 2. 1FR Schwegler bat box



Plan 2. Location of bat tube on north west gable of Building 1 outlined in blue



Plan 3. Location of bat tube on south east west gable of Building 2 outlined in blue

4. Protection of retained hedgerows during the construction phase

Retained Cornish hedgerows will be protected by a suitable fence zone 2 metres wide from the foot of the hedgebank.

This protection zone should be maintained for the duration of construction, and there should be no access, storage of materials, ground disturbance, burning, or contamination within the fenced areas.

5. Precautionary working methods during removal of a 2 metre section of hedgerow

A 2 metre section of hedgerow will be removed to provide site access.

This will be completed in the period April to October with temperatures above 10°C. Prior to the start of removal, all vegetation will be carefully checked by a suitably experienced ecologist for dormice, nesting birds, reptiles and hedgehog. Once the ecologist is happy none of these species are present, the hedgebank will be carefully removed.

If reptiles or hedgehog are found, these will be carefully relocated by the ecologist.

If nesting birds are found, works will be delayed until and nested chicks have fledged.

If Dormice are found, all works will stop and natural England will be contacted for further advice.

6. Control of Cotoneaster

Cotoneaster is present within the western boundary hedge. This plant will be treated as invasive non-native and eradicated as follows:

- Small Cotoneaster plants will be hand-pulled.
- Larger plants will be treated with a suitable herbicide, such as glyphosate, applied inline with manufacturers guidance.
- All arisings created during this process with either be retained onsite and burnt, or transported to licenced landfill.

7. Additional enhancement

Species rich lawn will be created to the rear of both dwellings comprising Emorsgate EL1 or EM2 mixtures. These contain slow growing grasses with a selection of wild flowers that respond well to regular short mowing.

To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll or tread to produce a level firm surface.

Sowing

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

Aftercare

First year management - The wild flower and grass species in this mix are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season. This annual weed growth is easily controlled by repeated mowing.

Mow newly sown flowering lawns regularly (every 7 -10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, removing cuttings if dense. This will gradually develop a good sward structure, help maintain balance between faster growing grasses and slower developing wild flowers, and control annual weeds.

Dig out any residual perennial weeds such as docks.

Management once established - Mow regularly as a lawn but not too short (25-40mm).

To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow cowslips to flower. Heavy quantities of cuttings should be collected and removed from site.