

1 INTRODUCTION

This Green Infrastructure Statement has been prepared to support the planning application for a proposed single-storey extension, external relaxation areas, and associated landscaping works at The Rose Retreat Spa, located within Cyfarthfa Park, Merthyr Tydfil. This document should be read in conjunction with the other plans, reports, and supporting documents submitted as part of the planning application.

The scope and level of detail within this Green Infrastructure Statement are proportionate to the scale of the proposed development and the nature of the site.

2 GREEN INFRASTRUCTURE BASELINE

The existing site

The site is located within the **Cyfarthfa Castle Historic Park and Garden**, which contains a number of listed structures including the **Grade I listed Cyfarthfa Castle**, and lies within the **Cyfarthfa Conservation Area**. Rose Retreat sits opposite one of the entrances to Cyfarthfa Park and has an open, publicly visible garden.

The existing building is a simple and unassuming house of modest scale. The garden comprises a mix of lawn, planted boundary hedges, and trees of varying maturity, as shown in Figures 1.1 and 1.2 below.



Figure 1.1 : Images showing the existing Rose Retreat and garden. A low natural stone wall separates the garden from the road and reflects materials found within Cyfarthfa Castle Park.



Figure 1.2 : View from the garden towards the entrance to Cyfarthfa Park, showing the existing grassed area and boundary planting comprising trees and hedges.

GREEN INFRASTRUCTURE STATEMENT

Project Number: 2434
Date: 24/02/26

19 New Road, Llandeilo, SA19 6DD
107 Cowbridge Road East, Cardiff, CF11 9AG
www.mwd.wales | 01558 822009



The **existing garden ground cover** consists of:

- Managed grass lawn (**light green**) (approximately **95 sqm**)
- Boundary planting including hedges, shrubs, and trees (**dark green**) (approximately **63 sqm**)
- Areas of hard landscaping and paving (**Red**) (approximately **16 sqm**)



Diagram 1: Existing site layout and ground cover

No formal drainage studies have been undertaken. Surface water currently drains via permeable ground and existing drainage arrangements within the site.

3 DEVELOPMENT IMPACTS ON GREEN INFRASTRUCTURE

The Proposal

The proposal involves a single-storey extension, expanding into the garden to provide additional spa space, alongside external decked relaxation areas.

From the street, the development will be screened by a **locally sourced, untreated timber privacy screen** with a design inspired by the natural form of tree branches and the surrounding parkland. The screen will be softened by native planting to the front, with additional greenery from the green roof visible above, helping the development blend into the garden and wider Cyfarthfa Park setting.



Figure 1.3 3D render of the proposal, showing the green roof and new native planting to the front of the site, with existing trees and hedges.

The proposal has been designed to minimise loss of existing green infrastructure. The extension is located predominantly over the existing lawn and areas of hard landscaping, avoiding mature trees, hedges, and their root protection areas, allowing the more ecologically valuable garden edges to be retained.

All existing trees will be retained. However, a small area of hedge and planting along the eastern boundary will be removed and replaced with a thinner native planting scheme to accommodate the outdoor seating area, as shown in Figure 1.4 below. These minor losses are offset through new native planting, an ecologically diverse green roof, and additional bird, bat, and insect habitats.

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The updated site cover consists of:

- Managed grass lawn (**light green**): approximately **33 sqm**
- Boundary planting, including hedges, shrubs, and trees (**dark green**): approximately **41 sqm**
- Areas of hard landscaping and paving (**red**): approximately **31 sqm**
- New native hedgerow, shrub, and biodiversity planting (**light blue**): approximately **24 sqm**
- Proposed green roof with meadow-style native wildflower planting to support biodiversity (**purple**): approximately **29 sqm**

In addition, bird and bat boxes, constructed from woodcrete or woodstone, will be installed on existing trees and insect hotels will be positioned at toward the end of the garden.

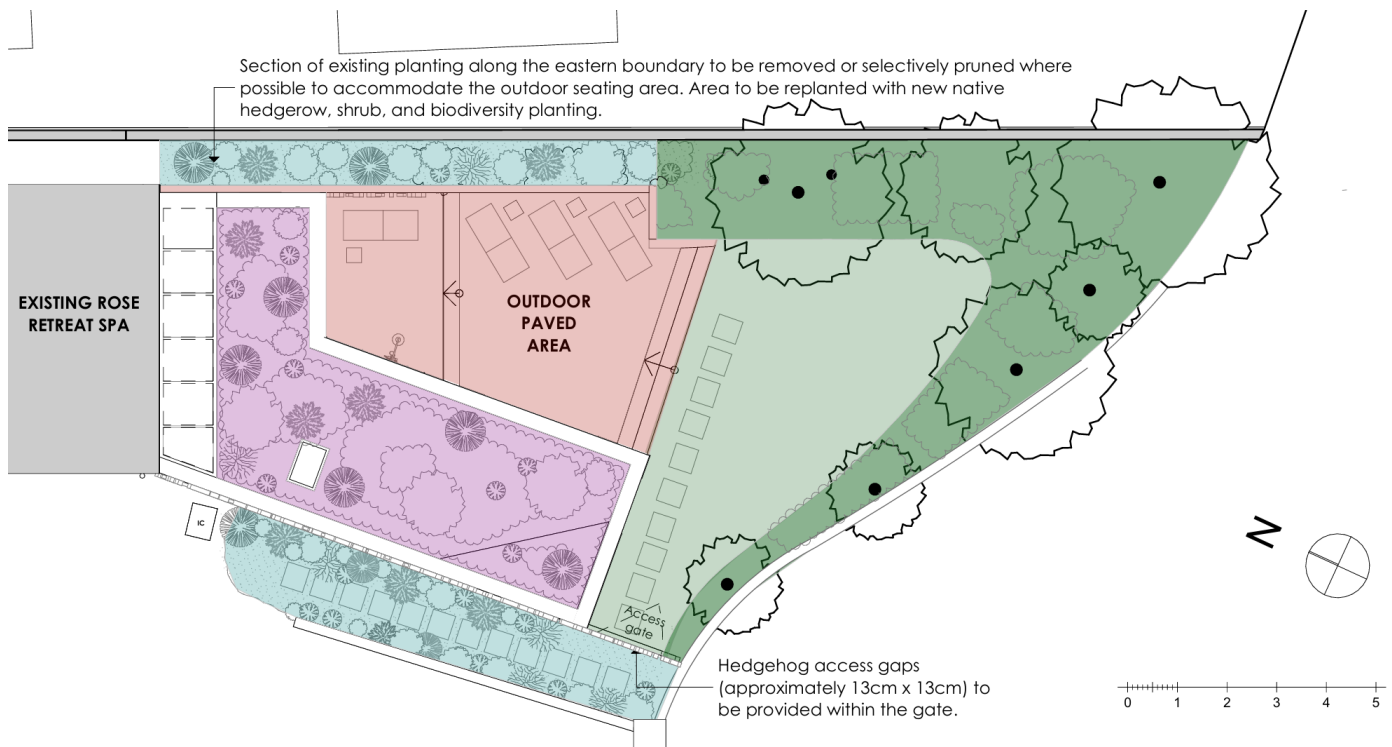


Figure 1.4: Updated ecological plan showing proposed site cover and ecological enhancements

Given the small scale of the development and the low ecological value of the areas affected, a formal biodiversity metric has not been undertaken; however, the proposal follows the principles of biodiversity net benefit through targeted on-site enhancements.

4 GREEN INFRASTRUCTURE AND BIODIVERSITY ENHANCEMENTS

The proposed development will incorporate a number of targeted measures to enhance local biodiversity and demonstrate a net benefit in accordance with Planning Policy Wales (Edition 12) and the Environment (Wales) Act 2016.

Green Roof

A biodiverse green roof will be installed above the sauna extension using the Bauder system, comprising the BauderGREEN WB native species vegetation mix.

The green roof will:

- provide nectar-rich habitat to support pollinators and invertebrates;
- contribute to biodiversity enhancement through the use of native and wildflower species.
- help integrate the extension visually within the surrounding park setting.
- Contribute to climate resilience by reducing surface water runoff, increasing shade and evapotranspiration, and supporting urban cooling.

The green roof will deliver approximately **29sqm** of biodiverse planting and will form an integral part of the site's wider green infrastructure and ecological strategy.

Native Planting

New planting beds will be introduced to soften the appearance of the extension and timber screen, using **native species of local or Welsh provenance**. Planting will be selected to provide year-round structure, seasonal interest, and biodiversity value. Native, climbers and hanging plants will be incorporated along sections of the timber screen to further blend its appearance.

Wildlife Enhancements

A range of small-scale wildlife enhancements will be provided, including:

- bird and bat boxes constructed from durable woodcrete or woodstone
- insect hotels
- hedgehog access gaps (approximately 13cm × 13cm) within boundary treatments

Rainwater Management

Where practicable, rainwater will be captured and reused for irrigation of planting areas, helping to reduce surface water runoff and support new vegetation.

Together, these enhancements provide multi-functional environmental benefits including biodiversity support, water management, and improved climate resilience appropriate to the site's scale and context.

5 STEP WISE APPROACH

This Green Infrastructure Statement has been prepared in line with the Planning Policy Wales (Edition 12) and has been assessed against the Green Infrastructure and Biodiversity policies set out in Chapter 6, including the application of the Step-Wise Approach:

Avoid

The extension has been carefully sited within the existing garden to avoid mature trees and ecologically valuable planted areas, with the rear of the garden and boundary planting retained.

Minimise

Construction-related impacts will be minimised through the use of off-site prefabrication where possible, reducing on-site construction time, noise, and disturbance. Construction activities will be restricted to standard working hours and will not take place during anti-social hours.

External lighting will be kept to a minimum and limited to low-level downlighters localised to the decking and entrance/exit areas. Lighting will be designed in accordance with the Bat Conservation Trust's *Guidance Note 8: Bats and Artificial Lighting* and guidance from the Institute of Lighting Professionals. This will include the use of warm white or amber lighting (2700K or lower, ideally within the 580–620nm range) and motion sensors or timers to ensure lights are only used when required.

Mitigation, Compensation and Enhancement

Any minor loss of lower-value planting is offset through the creation of more ecologically diverse habitats, including native planting, a green roof, integrated wildlife features, and improved surface water management, resulting in a net gain for biodiversity across the site.

Long-Term Management

A long-term management plan will be implemented for a minimum period of 25 years to ensure the continued success of existing and new green infrastructure. The plan will be funded through the ongoing operation of the spa and will include:

- replacement of failed planting
- management of planting to support biodiversity
- inspection and maintenance of bird, bat, and insect boxes (outside of nesting seasons)
- ongoing maintenance of the green roof in accordance with manufacturer guidance, including twice-yearly inspections

6 CONCLUSION

The design-led approach and targeted enhancements included in this proposal demonstrate alignment with the national and local planning objectives for green infrastructure. The development avoids ecological harm and integrates appropriate measures that support biodiversity and sustainable water use. It is therefore considered that the proposal meets the requirements of Planning Policy Wales (Edition 12), the Environment (Wales) Act 2016, and the guidance set out by Merthyr Tydfil County Borough Council.