



**Ty Brynseion,
Dowlais,
Merthyr Tydfil**

**Green Infrastructure Statement and Net Biodiversity
Benefit Statement**

September 2025

Acer Ecology

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DOCUMENT CONTROL

Ty Brynseion, Dowlais, Merthyr Tydfil, CF48 3SR Green Infrastructure Statement and Net Biodiversity Benefit Statement				
Revision	Date	Prepared by	Checked by	Approved by
1.0	10 September 2025	Ellis Cleland Assistant Ecologist <i>E. Cleland</i>	Louise Cooper Assistant Ecologist <i>L Cooper</i>	Paul Hudson MCIEEM Principal Ecologist <i>Paul Hudson</i>

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1 Introduction

1.1 Green Infrastructure Statements

Planning Policy Wales defines green infrastructure as:

"The network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. Component elements of green infrastructure can function at different scales and some components, such as trees and woodland, are often universally present and function at all levels. At the landscape scale green infrastructure can comprise entire ecosystems such as wetlands, waterways and mountain ranges or be connected networks of mosaic habitats, including grasslands. At a local scale, it might comprise parks, fields, ponds, natural green spaces, public rights of way, allotments, cemeteries, and gardens or may be designed or managed features such as sustainable drainage systems. At smaller scales, individual urban interventions such as street trees, hedgerows, roadside verges, and green roofs/walls can all contribute to green infrastructure networks¹."

The National Planning Policy Wales version 12 was published in February 2024 and states that a green infrastructure statement must now be submitted with all planning applications. It must describe how green infrastructure has been incorporated into the development proposals and to demonstrate the positive multifunctional outcomes appropriate to the site, showing how the stepwise approach (see Appendix 1) has been applied to prioritise avoidance, minimisation, and compensation of potential impacts.

1.2 Net Biodiversity Benefits (NBB)

In Wales, the concept of Net Biodiversity Benefits (NBB) is a planning policy framework that mandates development projects to enhance biodiversity rather than simply mitigate their impacts. Unlike the quantitative approach of Biodiversity Net Gain (BNG) in England, which requires a 10% increase in biodiversity based on specific metrics, Wales uses a more qualitative and site-specific evaluation focused on ecosystem resilience.

The Planning Policy Wales (PPW) outlines the principle of NBB. Developers must demonstrate that their projects leave ecosystems in a better state by enhancing biodiversity either on-site or, when necessary, off-site. This involves a step-wise approach:

- Avoiding harm to biodiversity where possible.
- Minimising impacts through careful design.
- Mitigating and restoring any residual impacts.
- Compensating only as a last resort, if on-site measures are insufficient.

¹https://static1.squarespace.com/static/5c45e569c3c16a9eac56d244/t/6565ccf1517d747aa68af45c/1701170419121/Briefing_Paper_BwN_and_Planning_Policy_in_Wales_v1.0.pdf

Projects must also align with the DECCA framework, which evaluates biodiversity resilience based on Diversity, Extent, Condition, Connectivity, and overall resilience. Long-term management and ecological considerations are essential, and planning permission can be denied if NBB is not adequately addressed.

This policy not only ensures the development achieves net biodiversity benefit through the enhancement of biodiversity and protection of habitats on site, but also aims to promote sustainable development and ecological connectivity across Wales, contributing to national biodiversity goals.

1.3 Site Description and Ecological Context

The site is located at Ty Brynseion, Dowlais, Merthyr Tydfil, CF48 3SR, within the boundary of Merthyr Tydfil County Borough Council (Ordnance Survey Grid Reference centred at: SO 0645 0780)².

The proposed development site measures approximately 0.37ha and comprises a single three-storey residential block with associated communal gardens. Vegetation on site is limited to short mown amenity grassland, scattered trees and ornamental shrubs, with further garden habitats and street trees present in the surrounding residential landscape (see Plan 1).

The site is situated within a residential area of Dowlais, approximately 2.5km north-east of Merthyr Tydfil town centre. The surrounding landscape is predominantly urban, characterised by residential housing, associated gardens, and local amenity spaces. The site itself is bordered to the north-east and south-west by residential streets, with housing and gardens extending beyond. To the north-west lies a church with associated vegetated grounds, while to the south-east is a park, both of which connect to further housing and gardens.

The topography is gently sloping, lying at approximately 330m above sea level, typical of the upland setting of Dowlais. Ecological connectivity is maintained through nearby residential gardens, street trees, and areas of semi-natural habitat in the wider landscape, including open grassland and woodland on the surrounding hillsides.

1.4 Proposed Development

The proposed development works comprise the installation of external wall insulation (EWI) with associated window replacements and the installation of an air source heat pump to the existing Ty Brynseion residential block. Works will be confined to the existing building footprint and its immediate surrounds, with no anticipated requirement for vegetation clearance other than the potential for very minor disturbance to amenity grassland directly adjacent to the facades.

Enhancement measures integral to the scheme include the provision of permanent bat roosting features, comprising two Beaumaris Midi Woodstone boxes installed on the south-eastern boundary wall of the building within the communal grounds and one Schwegler 1WQ summer/winter box mounted on the north-western gable elevation of the building. In addition, two Schwegler 1B bird boxes will be installed on

² Latitude and Longitude: 51.761042, -3.3568845 / what3words: valley.water.refers

retained trees along the southern boundary to provide nesting habitat for common garden bird species. External works will also include a revised lighting scheme designed to be bat-sensitive, with all luminaires specified to 2700K or less, directional fittings to reduce light spill, and dark corridors maintained around bat boxes and commuting features.

At the time of writing, a full planning application has been submitted to Merthyr Tydfil County Borough Council (P/24/0130)³. The proposed development plan is provided in Plan 3.

³<https://publicaccess.merthyr.gov.uk/online-applications/applicationDetails.do?keyVal=SD9OTPKQGE700&activeTab=summary>

2 Green Infrastructure

2.1 Existing Green Infrastructure

The site's green infrastructure includes amenity grassland, ornamental shrub planting, and a small number of semi-mature and mature trees. While the grassland and ornamental planting are of limited biodiversity value, the trees represent important features within the site, providing structural diversity, nesting habitat, and foraging opportunities for birds and invertebrates. Overall, the site is considered to be of moderate biodiversity value, with its ecological contribution arising primarily from the scattered trees and associated shrub cover.

2.2 Green Infrastructure Removal

The proposed development will not require large-scale clearance of vegetation. Works will be confined to the existing building footprint and its immediate surrounds. There is potential for minor disturbance to amenity grassland directly adjacent to the facades during the installation of external wall insulation and associated scaffolding. Should this occur, it is anticipated that disturbed areas would be reinstated following completion of works.

No hedgerows or priority habitats will be removed as part of the development. The semi-mature and mature trees within the communal grounds, along with all ornamental shrub planting, will be retained, thereby maintaining the majority of the existing green infrastructure and ecological connectivity.

2.3 Green Infrastructure Proposed on Site

The proposed development incorporates targeted green infrastructure enhancements designed to safeguard protected species, enhance biodiversity, and ensure ecological connectivity is maintained.

Key elements of the proposed green infrastructure at the site include:

- **Bat roost provision** – installation of three bat boxes on suitable elevations of the building and surrounding communal gardens, and raised fascia and bargeboards around the building.
- **Bird boxes** – installation of two bird boxes on retained trees along the southern boundary.
- **Shrub and tree planting** – enhancement of existing beds and borders with additional planting to provide nectar, pollen, and structural diversity.
- **Insect hotel provision** – installation of an insect hotel within the communal grounds.

Together, these measures will ensure that the development not only mitigates potential impacts but also delivers ecological enhancements consistent with Planning Policy Wales (Edition 12) and the principle of securing a net benefit for biodiversity.

Bat Roost Provision

Two Beaumaris Midi Woodstone bat boxes (Appendix 2) will be installed along the boundary wall at the south-east of the building (Plan 2) prior to the commencement of development, ensuring roosting opportunities are available from the outset. The boxes will be mounted at a height of 3m in sheltered positions with suitable sun exposure, while remaining screened from direct lighting and disturbance and maintaining connectivity with commuting routes across adjacent gardens and open space. Installation will be supervised by a licensed ecologist to ensure secure and appropriate fixing, and the boxes will be retained on site in-perpetuity as a biodiversity enhancement.

A single Schwegler 1WQ summer/winter bat box (Appendix 3) will be installed on the north-western gable elevation, mounted at a minimum height of 4m. This design provides a more insulated, all-season roost that will remain suitable for use during both summer maternity and cooler autumn/winter conditions.

In addition to externally mounted boxes, the proposed design incorporates raised fascia and bargeboards with 20 mm access gaps (Appendix 4) around the entire perimeter of the building. These features replicate the type of crevice roosting habitat commonly used by common pipistrelle (*Pipistrellus pipistrellus*), ensuring the long-term availability of integrated roosting opportunities within the building fabric. Each access gap will be positioned beneath the leading edge of the bargeboard to provide a sheltered ingress and egress point into the enclosed void behind the fascia, while avoiding direct exposure to light and adverse weather.

Bird Boxes

Two Schwegler 1B bird boxes (Appendix 5) will be installed on retained trees within the communal grounds. These will be installed prior to the breeding season following completion of construction works to ensure they are available at the start of the nesting period (typically March–August inclusive).

The boxes will be mounted at a height of 2–4m above ground level on the trunks of mature trees within the south-eastern sections of the site, positioned to face between north and east to avoid overheating from prolonged afternoon sun and to provide sheltered, secure conditions for nesting.

Installation will ensure the boxes are placed in locations free from direct illumination by external lighting and away from high levels of disturbance such as footpaths or entrances where possible. Each box will be securely fixed using aluminium nails or straps that will not damage the tree as it grows.

These bird boxes are designed to accommodate a range of small passerines typical of urban and garden settings, including blue tit (*Cyanistes caeruleus*), great tit (*Parus major*), and house sparrow (*Passer domesticus*). By providing nesting habitat, the development will support local breeding bird populations and contribute to wider ecological connectivity in the residential landscape.

Native Shrub and Tree Planting

Enhancements to the site's landscaping will be delivered through the planting of a defined mix of native shrubs and a small tree within the communal garden areas, focused on enriching the existing shrub beds and borders. The full planting schedule, including species, numbers, and ecological value, is provided in Appendix 7.

Planting will be maintained in accordance with the Landscape and Ecological Management Plan (LEMP), which will secure establishment through watering and replacement planting where required, followed by a relaxed pruning regime to encourage flowering and fruiting.

Species have been selected to provide nectar and pollen resources across the seasons, supporting invertebrates such as bees, butterflies, and hoverflies, while also offering fruit, berries, and shelter for birds and small mammals. Species have also been chosen for their biodiversity value and resilience to local conditions in Dowlais, ensuring that the planting contributes to a continuous nectar sequence from early spring through to late autumn. To maximise ecological benefit, shrubs will be planted in small clusters rather than as isolated individuals, improving foraging efficiency for pollinators and creating structurally diverse habitat patches.

In addition to the scheduled planting, a list of suggested species for use in planters and private gardens is provided in Appendix 6, offering further opportunities for residents to contribute to local biodiversity enhancement.

Insect Hotel Provision

Green infrastructure will be enhanced through the installation of a proprietary insect hotel within the communal grounds to provide sheltering, nesting, and overwintering opportunities for a range of invertebrate species, including solitary bees, ladybirds, lacewings, and other pollinators.

The insect hotel will be positioned in a sunny, south-facing location to maximise warmth and ensure suitability for solitary bees. It will be placed within the south-eastern shrub border at a height of 0.5–1.0 m above ground level, fixed securely to posts or retained planting.

The selected insect hotel (see Appendix 8 for product details) is designed with a range of cavity sizes and natural materials to replicate the crevices and hollow stems found in natural habitats. Its placement within the shrub border will ensure proximity to foraging resources provided by the wider communal planting scheme.

Together, these measures will create valuable habitat for invertebrates within the site, contributing to pollination services, strengthening the food web for birds and bats, and delivering wider biodiversity benefits consistent with Planning Policy Wales (Edition 12).

LEMP

It is recommended that a Landscape and Ecological Management Plan (LEMP) be produced to outline the mitigation strategies and how they will be managed and maintained to ensure their successful establishment. This will be conditioned as part of the planning consent.

3 Building with Nature Standards Framework

The development has also met several of the green infrastructure standards as outlined in the Building with Nature Standards Framework⁴. The Building with Nature Standards Framework involves twelve Standards, arranged across four groups. There are six Core Standards and three themes, Wellbeing, Water and Wildlife, containing two Standards in each. The six Core Standards create a solid foundation for the delivery of high-quality green infrastructure through design, planning and development.

3.1 Core Standards

The core standards are detailed below: together with details of how they are being met on site.

Standard 1: Optimise Multifunctionality and Connectivity – Although the site is located within a predominantly residential area and currently comprises amenity grassland, scattered trees, and ornamental shrubs, the proposed green infrastructure enhancements will deliver multiple functions. These include supporting local biodiversity through the provision of permanent bat roosting features, bird boxes, and insect hotels; increasing pollinator resources through native planting within shrub beds and borders; and safeguarding commuting and foraging habitat via a sensitive external lighting strategy.

Together with the surrounding network of gardens, street trees, and nearby open spaces, the site will act as a small but important stepping-stone habitat, supporting ecological connectivity within the wider urban landscape.

Standard 2: Positively Responds to the Climate Emergency – The green infrastructure enhancements at Ty Brynseion have been designed to improve the site's resilience to changing climatic conditions. The introduction of native and pollinator-friendly planting within existing borders will establish vegetation able to withstand variable weather, providing year-round nectar sources while supporting invertebrate diversity.

Standard 3: Maximises Environmental Net Gain – The proposed green infrastructure at Ty Brynseion has been designed to deliver measurable ecological enhancements within the context of an existing residential site. While large-scale habitat creation is not feasible, the scheme incorporates targeted biodiversity measures including the installation of permanent bat roosting features, bird boxes, and insect hotels, alongside sensitive lighting design to safeguard foraging and commuting bats.

Native and pollinator-friendly planting within existing borders will provide extended-season nectar sources for invertebrates, increasing floral diversity and strengthening ecological function. Together, these measures will deliver additional nesting, roosting, and overwintering opportunities for wildlife, helping to support ecological resilience within the urban setting.

Standard 4: Champions a Context-Driven Approach – Not considered relevant for this site. We are not aware of any stakeholder feedback informing the green infrastructure layout, features and design.

⁴https://static1.squarespace.com/static/5c45e569c3c16a9eac56d244/t/6351513d1afee236d4cf6ce8/1666273600232/Building_with_Nature_Standards_Framework_2.0_Oct22_Download_Version.pdf

Standard 5: Creates Distinctive Places – The green infrastructure enhancements at Ty Brynseion form an integral part of the development, contributing both to ecological value and the visual character of the communal grounds. At present, the site comprises amenity grassland and ornamental shrub planting, with scattered trees providing structure and some biodiversity value. The proposed enhancements, including additional native shrub and tree planting, installation of bird and bat boxes, and provision of an insect hotel, will strengthen the site’s ecological role while enhancing its visual quality and distinctiveness for residents.

Standard 6: Secures Effective Place-keeping – This standard is not considered directly relevant to the site. At present, it is not known what governance or management structure will be adopted for the long-term care of green infrastructure features at the site. Ongoing management requirements will be set out in the Landscape and Ecological Management Plan (LEMP), ensuring that key biodiversity measures are maintained appropriately over time.

Standard 7: Brings Nature Closer to People – Although Ty Brynseion is an existing residential site with established communal grounds, the proposed green infrastructure enhancements will bring residents into closer contact with nature on a daily basis. The introduction of native shrub and small tree planting will provide seasonal colour, fragrance, and visible wildlife activity, enriching the visual quality of the communal spaces.

The installation of bird boxes, bat roost features, and an insect hotel will create opportunities for residents to observe and appreciate local wildlife, helping to foster awareness of the biodiversity present within their living environment. Collectively, these enhancements will transform the existing amenity space into a more engaging and ecologically functional landscape, strengthening residents’ informal opportunities to connect with nature.

Standard 8: Supports Equitable and Inclusive Places – This standard is not considered directly applicable to the Ty Brynseion scheme. The site comprises a private residential development with communal grounds accessible only to residents, and the proposed green infrastructure measures are therefore not intended to serve a wider inclusive public use.

Standard 9: Delivers Climate Resilient Water Management – This standard is not considered relevant to this site as the proposed development does not include the creation of new water management features.

Standard 10: Brings Water Closer to People – *Not applicable.* The development does not include the creation of water-based infrastructure, and there is no opportunity to integrate water for public interaction or amenity use within the site.

Standard 11: Delivers Wildlife Enhancement – The green infrastructure at Ty Brynseion has been designed to deliver targeted biodiversity enhancements within the communal grounds of the residential site.

Native and pollinator-friendly planting within borders will extend floral resources and provide seasonal nectar and pollen for invertebrates, while also adding structural diversity to the planting scheme. The

installation of permanent bat roosting features, bird boxes, and insect hotels will provide additional nesting, roosting, and overwintering opportunities for key species. Together, these measures will strengthen the site's ecological function, enhance species diversity, and contribute to the wider urban habitat network within Dowlais and the surrounding upland landscape.

Standard 12: Underpins Nature's Recovery – The proposed green infrastructure at Ty Brynseion will contribute to nature's recovery by enhancing the ecological value of the communal grounds and strengthening connectivity with the surrounding urban landscape. Native and pollinator-friendly planting within existing borders will provide seasonal nectar and pollen resources, supporting pollinators and other invertebrates throughout the year. The installation of bird boxes, bat roost features, and insect hotels will further diversify available niches, creating nesting, roosting, and overwintering opportunities that complement the planted features.

Collectively, the enhancements will function as small but important stepping-stone habitats, linking the site with surrounding residential gardens, street trees, and semi-natural habitats on the wider hillside. By increasing ecological resilience and supporting a broader range of species, the scheme contributes to the long-term recovery and enhancement of local wildlife populations.

3.2 Baseline Assessment (DECCA Framework)

The site has been assessed using the DECCA framework (Diversity, Extent, Condition, Connectivity, and Adaptability) to establish its baseline ecological value.

- **Diversity** – The site supports moderate species diversity, dominated by amenity grassland, scattered trees and ornamental shrubs. Species present are typical of managed urban greenspace with limited value for wildlife.
- **Extent** – Green infrastructure is limited in extent, comprising narrow grassed areas and communal beds around the building footprint. The majority of the site is occupied by hardstanding and built form.
- **Condition** – Existing vegetation is in moderate ecological condition reflecting routine management and a lack of structural or botanical diversity.
- **Connectivity** – Ecological connectivity is moderate. The site links into a wider network of residential gardens, street trees, and nearby open spaces, including a hedgerow-lined park to the south-east. While on-site habitats are relatively limited, the surrounding green infrastructure helps maintain functional connections for birds, bats, and invertebrates within the urban landscape.
- **Adaptability** – The existing habitats have limited potential to adapt to environmental change due to their restricted extent and species composition. Opportunities exist to improve adaptability through the introduction of diverse native planting and the installation of wildlife features.

Overall, the site currently supports a limited range of habitats, with biodiversity enhancements proposed to strengthen ecological resilience and secure a measurable net benefit for biodiversity.

4 Landscape and Ecological Management Plan (LEMP)

To secure the successful establishment, long-term functionality, and measurable biodiversity benefit of the proposed enhancements, a Landscape and Ecological Management Plan (LEMP) will be implemented. The LEMP will guide management for a minimum period of 30 years and will be subject to review as required.

Native Shrub and Tree Planting

All new planting will be maintained for at least five years to ensure establishment. During the first two growing seasons, shrubs and the single rowan tree will be watered during dry periods, mulched annually to suppress weeds and conserve soil moisture, and checked for pest or disease issues. Failed plants will be replaced on a like-for-like basis within the first five years to maintain intended species diversity and density. Once established, shrubs will be subject to a light-touch pruning regime undertaken outside the bird nesting season (March–August) to promote flowering and fruiting. These measures will ensure the planting develops into structurally diverse habitat patches, providing nectar, pollen, fruit, and cover for a wide range of invertebrates, birds, and small mammals.

Bat and Bird Boxes

All boxes will be installed by or under the supervision of an ecologist in line with best-practice guidance. They will be inspected annually for the first five years following installation to confirm they remain in good condition, securely fixed, and free from obstruction. Bat box checks will only be undertaken by a licensed bat ecologist. If boxes are found to be damaged, degraded, or missing, they will be replaced on a like-for-like basis within the same season. Thereafter, inspections will continue every three years for the lifetime of the development to ensure provision remains effective.

Insect Hotel

The insect hotel will be checked annually to ensure it remains stable, securely fixed, and in a suitable sunny, sheltered position. If the structure degrades, it will be replaced on a like-for-like basis. Management of the surrounding planting will avoid pesticide/herbicide use, ensuring nectar and pollen resources remain available in close proximity. These measures will maintain nesting and overwintering opportunities for solitary bees and other beneficial invertebrates in perpetuity.

General Measures

Across all communal landscaped areas, the use of pesticides and herbicides will be avoided, particularly in the vicinity of biodiversity features. Leaf litter and small amounts of deadwood will be retained within shrub beds where safe and practicable, creating microhabitats that support invertebrates, soil organisms, and the wider food web.

Monitoring and Reporting

A record of management and monitoring will be maintained by the management body responsible for the communal grounds. Annual inspections during the first five years will confirm establishment of planting, the condition of biodiversity features, and the need for any remedial measures. Thereafter, inspections will occur at least once every three years, with a summary of actions retained on file for review by the Local Planning Authority on request.

4.1 Summary of Development and How it Meets the Core Standards

Overall, the development meets the majority of the core standards within the Building with Nature Standards Framework.

4.2 The Stepwise Approach

The table below sets out how the Stepwise Approach has been taken in assessing impacts of a development on habitats and species.

	Steps	Assessment	Enhancement	Long term Maintenance	Net Benefits
1	Avoid	Works are confined to the building footprint and immediate surrounds, avoiding impacts on the retained trees and the majority of communal green space.	Existing trees and shrub planting retained in situ.	Incorporated into Landscape and Ecological Management Plan (LEMP).	Retains baseline ecological value and structural features.
2	Minimise	Site clearance has been limited to the minimum required for construction, avoiding damage to boundary vegetation.	N/A	N/A	N/A
3	Mitigation/restore	Possible minor disturbance to amenity grassland during construction. Potential for disturbance to commuting and foraging bats through external lighting, as well as to newly installed roosting features if these are illuminated.	Native pollinator-friendly planting to enhance existing amenity grassland. Sensitive lighting scheme to safeguard commuting routes; bat boxes installed to provide new roosting sites.	Monitoring of bat boxes through LEMP.	Yes
4	Compensate on site	No priority habitats present, therefore no compensation required.	N/A	N/A	N/A
5	Compensate off site	N/A	N/A	N/A	N/A

5 Net Biodiversity Benefit

5.1 Biodiversity Enhancement

Biodiversity enhancement focuses on ecologically improving the development site by prioritising wildlife through the installation of features that enhance the level of biodiversity present, leaving the site with a net biodiversity benefit post-development. Examples of these features may include wildflower meadows, green roofs, swales, bird and bat boxes, and other habitats suitable for wildlife.

The green infrastructure proposed for this site that will enable it to result in a net biodiversity benefit includes:

- Permanent bat roost features
- Bird boxes
- Insect hotel
- Native and pollinator-friendly planting

The locations recommended for these biodiversity enhancement features are shown on Plan 2.

6 Conclusion

6.1 Green Infrastructure and Net Biodiversity Benefit Statement

The green infrastructure proposed for Ty Brynseion will enhance the ecological value of the communal grounds, ensuring that the site delivers a measurable net biodiversity benefit following development. While no habitat of high ecological value will be lost, the introduction of targeted enhancements will create new opportunities for wildlife and improve the functionality of the site's green space.

Permanent bat roosting features, bird boxes, and insect hotels will provide valuable nesting, roosting, and overwintering opportunities for key species, while native and pollinator-friendly planting will increase floral diversity and extend nectar and pollen availability throughout the year. A sensitive external lighting scheme will safeguard bat commuting and foraging activity, ensuring that new roost features remain effective and that ecological connectivity is maintained.

Collectively, these measures will function as small but important stepping-stone habitats within the residential landscape, linking the site to surrounding gardens, street trees, and semi-natural habitats in the wider uplands. By strengthening ecological networks and increasing habitat diversity, the scheme will improve the site's biodiversity value beyond pre-development levels.

Overall, the implementation of these measures ensures that Ty Brynseion supports greater habitat diversity, species abundance, and ecological resilience in the long term. This approach aligns with national and local biodiversity enhancement objectives and contributes positively to the wider green infrastructure network within Merthyr Tydfil.

7 References

Building with Nature (2023) *Delivering High Quality Green Infrastructure In Wales*. Available at: https://static1.squarespace.com/static/5c45e569c3c16a9eac56d244/t/6565ccf1517d747aa68af45c/1701170419121/Briefing_Paper_BwN_and_Planning_Policy_in_Wales_v1.0.pdf

Building with Nature Standards Framework (2023) Available at: https://static1.squarespace.com/static/5c45e569c3c16a9eac56d244/t/6351513d1afee236d4cf6ce8/1666273600232/Building_with_Nature_Standards_Framework_2.0_Oct22_Download_Version.pdf

Planning Policy Wales (2024) Available online at <https://www.gov.wales/sites/default/files/publications/2024-07/planning-policy-wales-edition-12.pdf>

Bat Conservation Trust and the Institution of Lighting Professionals (BCT/ILP, 2018) <https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting>

Plan 1: Site Location



Plan 2: Proposed Locations for Mitigation and Enhancement Measures



The architectural drawings for the proposed block plan include the following elements:

- 1 South East Elevation:** A detailed elevation of the building's southeast facade, showing a mix of brick and light-colored panels with multiple windows. A scale bar is provided below the drawing.
- 2 North East Elevation:** A detailed elevation of the building's northeast facade, featuring a prominent gabled roof section and a mix of brick and light-colored panels.
- 3 North West Elevation:** A detailed elevation of the building's northwest facade, showing a mix of brick and light-colored panels with multiple windows.
- 4 South West Elevation:** A detailed elevation of the building's southwest facade, showing a mix of brick and light-colored panels with multiple windows.
- 5 Proposed Block Plan:** A site plan showing the building's footprint within a block bounded by North Street, Bryn-Seon Street, and North Street Y Garolfan. It includes surrounding features like The Lady Chapel and Elm Protestant Church. A scale bar is provided below the drawing.
- 6 3D View:** A perspective rendering of the proposed building, showing its complex roofline and facade materials.
- Materials Schedule:** A table listing the materials used in the design:

Materials	Schedule
Walls	Smooth White Render
	Weathered Red - Hailon
	Weathered
Doors	White PVC-u
Windows	White PVC-u
Roofs	Brown Concrete Tiles
EVMS	Black PVC-u
Escalates	White PVC-u
Clbs	Weathered Red - Hailon
	Brown Smooth
- Architectural Firm:** AD ARCHITECTURAL DESIGN CONSULTANTS LTD.
- Project Information:** 14 Brynmor Dwellings, Merthyr Tydfil, CF44 9SE. Proposed Layout. Drawn by: L.L.B. Page: 5 of 8. Date: 3/10/2024. Drawing No: 24/04/03. Key: C.

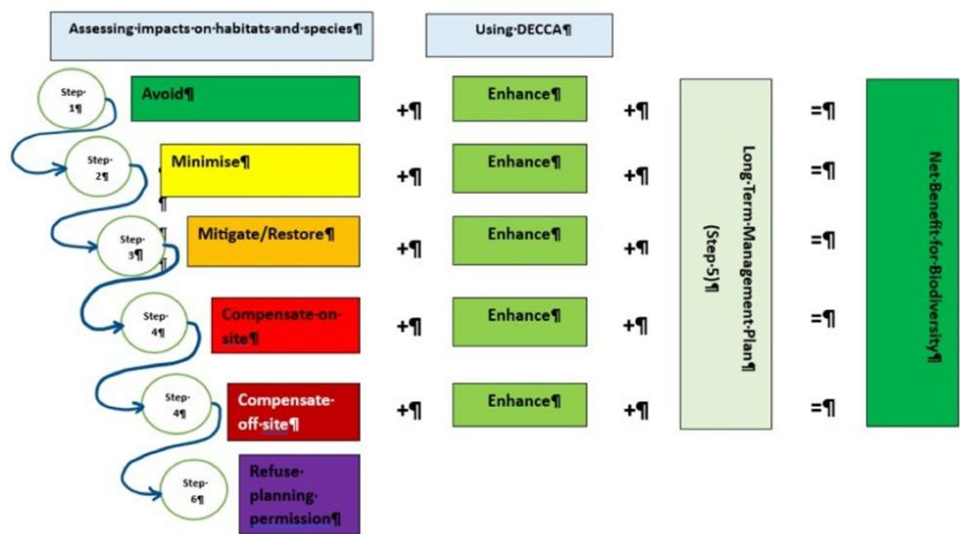
Appendix 1: Background to Requirements for Green Infrastructure Statements

On 11th October 2023 the Welsh Government issued updated National Planning Policy for chapter 6 of Planning Policy Wales. This was followed by the publication of Planning Policy Wales version 12 in February 2024.

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 stepwise approach (Paragraph 6.4.21) has been applied.”

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



Appendix 2: Beaumaris Midi Woodstone Box



The Beaumaris Midi woodstone box is specifically designed for crevice-dwelling bat species, particularly common pipistrelle and other small bats frequently associated with residential settings. Manufactured from an advanced woodstone material, the box provides high thermal stability, natural respiration, and long-lasting durability, ensuring suitability in upland areas subject to fluctuating temperatures.

The internal design mimics natural crevices, offering multiple roosting compartments that support summer roosting and maternity use. The robust, predator-resistant construction ensures long-term ecological value, with minimal maintenance required.

The Beaumaris Midi can be installed on trees or buildings and should be positioned at a height of 3m to 6m in a location with good solar exposure while avoiding excessive artificial lighting. Once occupied, bat roosts may only be disturbed by licensed bat workers.

Available at: <https://www.wildcare.co.uk/beaumaris-bat-box.html>

Appendix 3: Schwegler 1WQ Bat Box

Description:

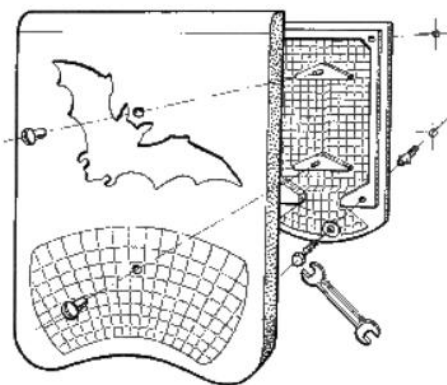
This box is designed to allow the safe hibernation of bats during the winter and for the formation of colonies and raising young in the summer. It has a layered structure of bat roost materials, coupling excellent insulation with good airflow. It has textured surfaces and varied hanging depths, making it suitable for different species. The entrance is designed with good grip on the approach and entry making it suitable for juvenile and inexperienced bats.

This roost is suitable for typical building-inhabiting species such as Pipistrelles, Serotines, Noctules or Bechsteins.



Installation:

Installation is easy using the four screws and plugs provided. The unit is detachable into two parts. First the base part is screwed to the wall and then the front-cover is attached, covering the mounting screws. The 1WQ can be easily attached to most types of external brick, timber or concrete walls.

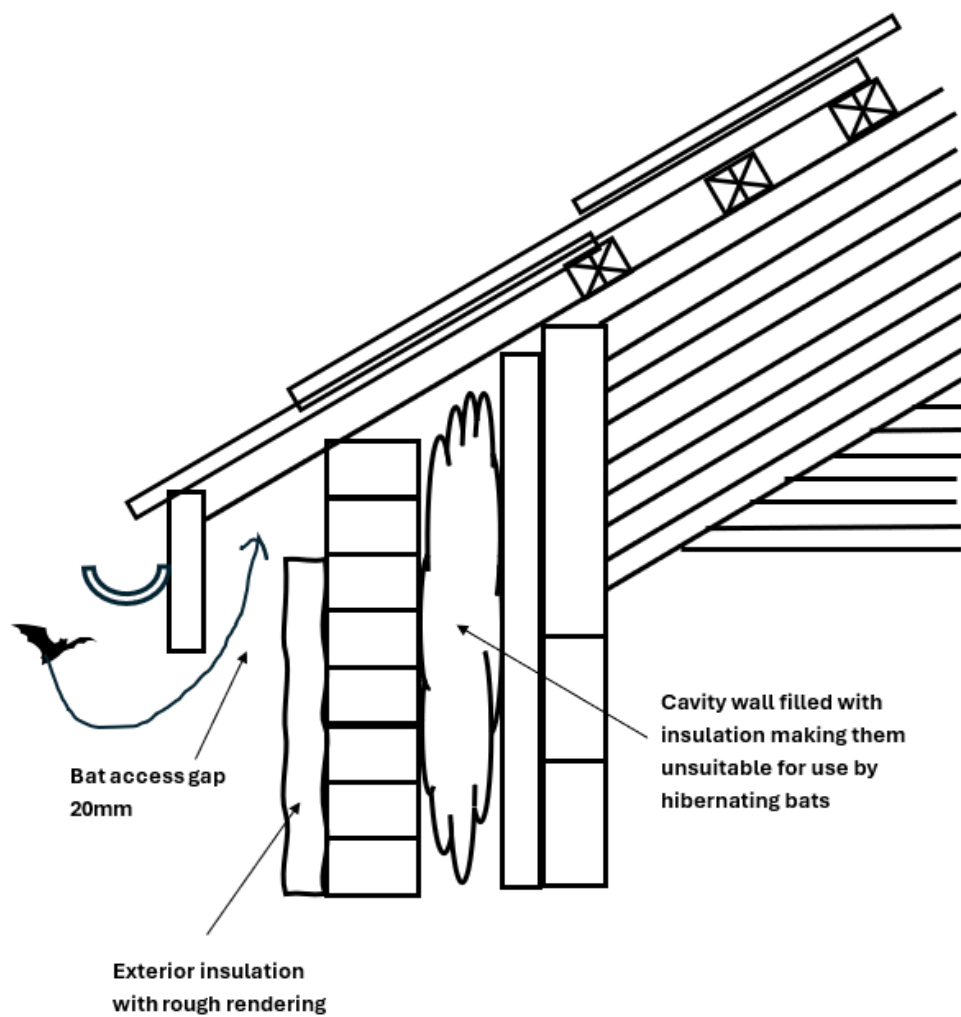


Specification:

- Dimensions: 38 x 12 x 58 cm (L x W x H)
- Weight: 22 kg
- Material: Weather-resistant, air-permeable and rot-proof schwegler light-concrete. Rust-resistant.

More information can be found at: [1WQ Schwegler Summer & Winter Bat Roost | NHBS Practical Conservation Equipment](#)

Appendix 4: Raised Fascia / Bargeboards



Appendix 5: Schwegler 1B General Small Bird Box

The Schwegler 1B Woodcrete nest box is available with different entrance hole sizes to attract a wide range of species and prevent competition between birds. The nest box can be attached to the tree or wall using an aluminium nail or by hanging over a branch. The nest box has removable front panel to aid inspection and cleaning.

Entrance hole sizes:

- **32mm entrance hole** will attract great, blue, marsh, coal and crested tit, redstart, nuthatch, collared and pied flycatcher, wryneck, tree and house sparrow and bats.
- **26mm entrance hole** suits blue, marsh, coal and crested tit and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole.
- **Oval entrance hole** (29 x 55mm) suits redstarts because more light enters the brood chamber. It is also suitable for all other species which nest in the 32mm boxes



The Schwegler 1B general small bird box will be preferably mounted on a stable tree trunk, rather than on branches which will sway. The mounting location will not be heavily shaded. Boxes should be mounted vertically on the tree.

Boxes will be mounted a minimum of 2m, and preferably 3m, above the ground, and as far as possible placed on the SE- or SW-facing surfaces of the tree trunks.

Appendix 6: Suggested Species for Planters and Gardens

A combination of the species below will provide a mix of textures, colours and ecological benefits, making the planters attractive and functional for wildlife.

Ornamental Grasses	Tufted Hair Grass	<i>Deschampsia cespitosa</i>	Its feathery inflorescence and attractive foliage make it a great choice for adding texture and interest to a garden. It provides cover and foraging grounds for great crested newts and other reptiles/amphibians.
	Purple Moor Grass	<i>Molinia caerulea</i>	Valued for its fine texture, movement and versatile nature.
	Blue Fescue	<i>Festuca glauca</i>	This small, clumping grass has striking blue foliage and is drought tolerant.
	Mexican Feather Grass	<i>Stipa tenuissima</i>	Known for its fine, wispy texture and tolerance to drought, it adds movement and interest to planters.
	Fountain Grass	<i>Pennisetum alopecuroides</i>	This grass has attractive, fluffy flower heads and is both drought and flood tolerant.
	Japanese Sedge 'Evergold'	<i>Carex oshimensis</i>	A tough, evergreen grass with variegated leaves, suitable for year-round interest.
Flowering Plants and Shrubs	Meadow Buttercup	<i>Ranunculus acris</i>	Creates rough grassland habitats that great crested newts can utilise to feed on insects.
	Red Campion	<i>Silene diocia</i>	Adds diversity into the grassland habitat whilst attracting invertebrates for great crested newt to feed on.
	English Lavender	<i>Lavandula angustifolia</i>	This drought-tolerant shrub attracts pollinators and adds fragrance and colour to planters.
	Wood Sage	<i>Salvia nemorosa</i>	A hardy perennial with spiky flowers that attract bees and butterflies.
	Purple Coneflower	<i>Echinacea purpurea</i>	This tough perennial has striking flowers that attract pollinators and are drought resistant.
	Ice Plant	<i>Sedum spectabile</i>	A succulent perennial that is excellent for pollinators and highly drought tolerant.
	Black-eyed Susan	<i>Rudbeckia fulgida</i>	A hardy perennial with bright yellow flowers that attract pollinators and are tolerant of various conditions.
	Ox-eye daisy	<i>Leucanthemum vulgare</i>	A hardy perennial with white daisy-like flowers that thrive in a variety of conditions and support pollinators.
	Foxglove	<i>Digitalis purpurea</i>	A biennial with tall spires of tubular flowers, favoured by bees and adaptable to shaded areas.
	Viper's bugloss	<i>Echium vulgare</i>	A drought-tolerant biennial with blue flowers that are highly attractive to pollinators.
	Honeysuckle	<i>Lonicera periclymenum</i>	A climbing plant with fragrant tubular flowers that provide nectar for moths and other pollinators.

	Garden geranium	<i>Geranium spp.</i>	A versatile perennial with long-lasting flowers that support pollinators and thrive in various conditions.
	Redcurrant	<i>Ribes rubrum</i>	A deciduous shrub that produces edible red berries and provides nectar for pollinators in spring.
	Common Knapweed	<i>Centaurea nigra</i>	A robust perennial with purple flowers that are a key resource for pollinators in grasslands.
	Forget-me-not	<i>Myotis sylvatica</i>	A low-growing annual or biennial with blue flowers that support pollinators in spring.
Small Shrubs	Hebe 'Autumn Glory'	<i>Veronica sect. Hebe</i>	This compact shrub has long-lasting purple flowers and is attractive to pollinators.
	Cotton Lavender	<i>Santolina chamaecyparissus</i>	A drought-tolerant shrub with silver foliage and yellow button flowers.
	Common Thyme	<i>Thymus vulgaris</i>	An aromatic shrub that attracts pollinators and is drought tolerant.
Additional Suggestions	Mexican Fleabane	<i>Erigeron karvinskianus</i>	A resilient, spreading plant with small daisy-like flowers, good for filling gaps and attracting pollinators.
	Ivy	<i>Hedera helix</i>	A climber providing year-round ground or wall cover, with late-season flowers and berries that benefit pollinators and birds.
	Tall Verbena	<i>Verbena bonariensis</i>	Tall, airy stems with clusters of small purple flowers, great for pollinators and tolerant of dry conditions.

Please note: the above tables include suggestions; however, they are not an exhaustive list, and advice should be sought from a horticulturist.

Appendix 7: Native Planting Mix for Urban Areas

Location (see Plan 2)	Species	Number	Biodiversity Value
Western lawn bed 1	Guelder Rose (<i>Viburnum opulus</i>) + Dog Rose (<i>Rosa canina</i>)	2 of each	Nectar (spring), berries (autumn), autumn colour Nectar (summer), hips for birds (autumn/winter)
Western lawn bed 2	Hawthorn (<i>Crataegus monogyna</i>) + Dogwood (<i>Cornus sanguinea</i>)	2 of each	Nectar (spring), berries (autumn), dense nesting cover. Nectar (summer), winter stem colour
Northern bed	Rowan (<i>Sorbus aucuparia</i>) + Hazel (<i>Corylus avellana</i>)	1 of each	Berries for thrushes / blackbirds, spring blossom Early pollen (catkins), nuts for birds / mammals
Southern boundary beds	Hazel (<i>Corylus avellana</i>) Guelder Rose (<i>Viburnum opulus</i>) Holly (<i>Ilex aquifolium</i>)	1 2 1	Early pollen (catkins), nuts for birds / mammals Nectar (spring), berries (autumn) Evergreen cover, berries (winter)

Appendix 8: Insect House Guidance and Recommendations

Design

Insect hotels should be made from natural, untreated materials such as bamboo, hardwood blocks, or hollow stems. Nesting holes should be smooth and varied in diameter (2–10 mm) to attract a range of species. Avoid plastic components or poorly ventilated designs, which can trap moisture and encourage mould. Ensure materials are tightly packed and replaceable to maintain cleanliness and reduce disease risks.

Placement

Position insect hotels in a sunny, sheltered location, ideally south or southeast-facing. They should be mounted off the ground to prevent exposure to damp conditions and reduce the risk of predation. Avoid shaded or overly wet areas, as these are less suitable for insects such as solitary bees.

Maintenance

Regular inspections should be carried out to check for mould, damage, or pest infestations, and replace contaminated or worn-out materials as needed. While overwintering insects should not be disturbed, materials can be cleaned or replaced before the active season in spring to prepare for new occupants.

Complementary Habitat Enhancements

To support the insects attracted to the hotel, establish nearby wildflower-rich areas that provide a consistent food source. Additional features such as hedgerows, bare soil patches, and ponds can further enhance the surrounding habitat, offering shelter and resources for a wider range of species. Pesticide use should be avoided or limited to an absolute minimum to maintain a safe and ecologically supportive environment.

The Bee and Bug House



The Bee and Bug House provides valuable habitat for solitary bees and other insects.

The top chamber features seven wooden nesting tubes in a wooden block, together with bamboo tubes of various sizes. A centre feeding hole is perfect for attracting ladybirds, earwigs and lacewings. The lower chamber is filled with pine cones which provide plenty of nooks and crannies for insects such as lacewings.

Removing the wooden retainer dowel allows you to replace the pine cones with alternative natural materials, such as straw or bark, which will provide an excellent winter habitat for lacewings, ladybirds, woodlice, earwigs and

many other bugs.

The Bug and Bee House will be painted with a water-based exterior paint. (An annual coat of paint will both keep it looking its best and prolong its life).

Specification

Height: 240 mm

Width: 170 mm

Depth: 105 mm

Weight: 1 kg

Available from: www.nhbs.com/bee-and-bug-biome

The Pinta Apex Insect House



The Pinta Apex Insect house is constructed from FSC timber. Solitary bees, wasps, and other invertebrates will use the box to lay eggs in providing a great opportunity for children to watch and learn about the lifecycle of these important and beneficial creatures.

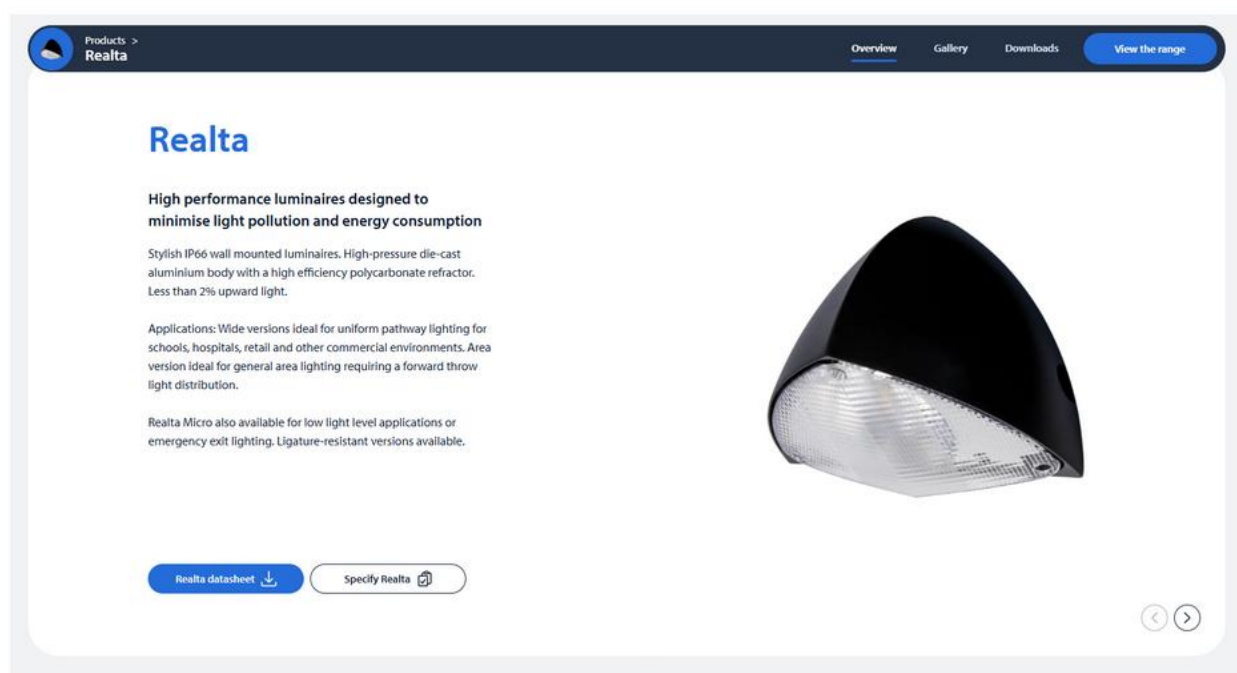
For best results place in a sunny, sheltered location near vegetation, preferably no higher than 2m.

Specification:

- Width: 17cm
- Height: 19.5cm
- Depth: 11cm
- Weight: 800g

Available at: NHBS Pinata Apex Insect House | Practical Conservation Equipment

Appendix 9: Realta Luminaire External Lights



The approved external lighting scheme will utilise Realta luminaires manufactured by Thorlux Lighting. These units have been specifically selected for their ability to provide safe, functional illumination while minimising light pollution and ecological disturbance. Each luminaire produces less than 2% upward light, ensuring that illumination remains directed downwards and confined to target areas, reducing sky glow and preventing unnecessary spill into the wider environment.

The Realta design incorporates a high-efficiency polycarbonate refractor and operates at a warm-white 2700K colour temperature, limiting the emission of short-wave blue light that is known to disturb bats and other nocturnal species. The robust IP66 die-cast aluminium body provides durability in external environments, while the fittings are mounted at heights of no more than 5 metres and equipped with timers and motion sensors. This ensures lighting is only activated during periods of human activity, rather than being left on continuously overnight.