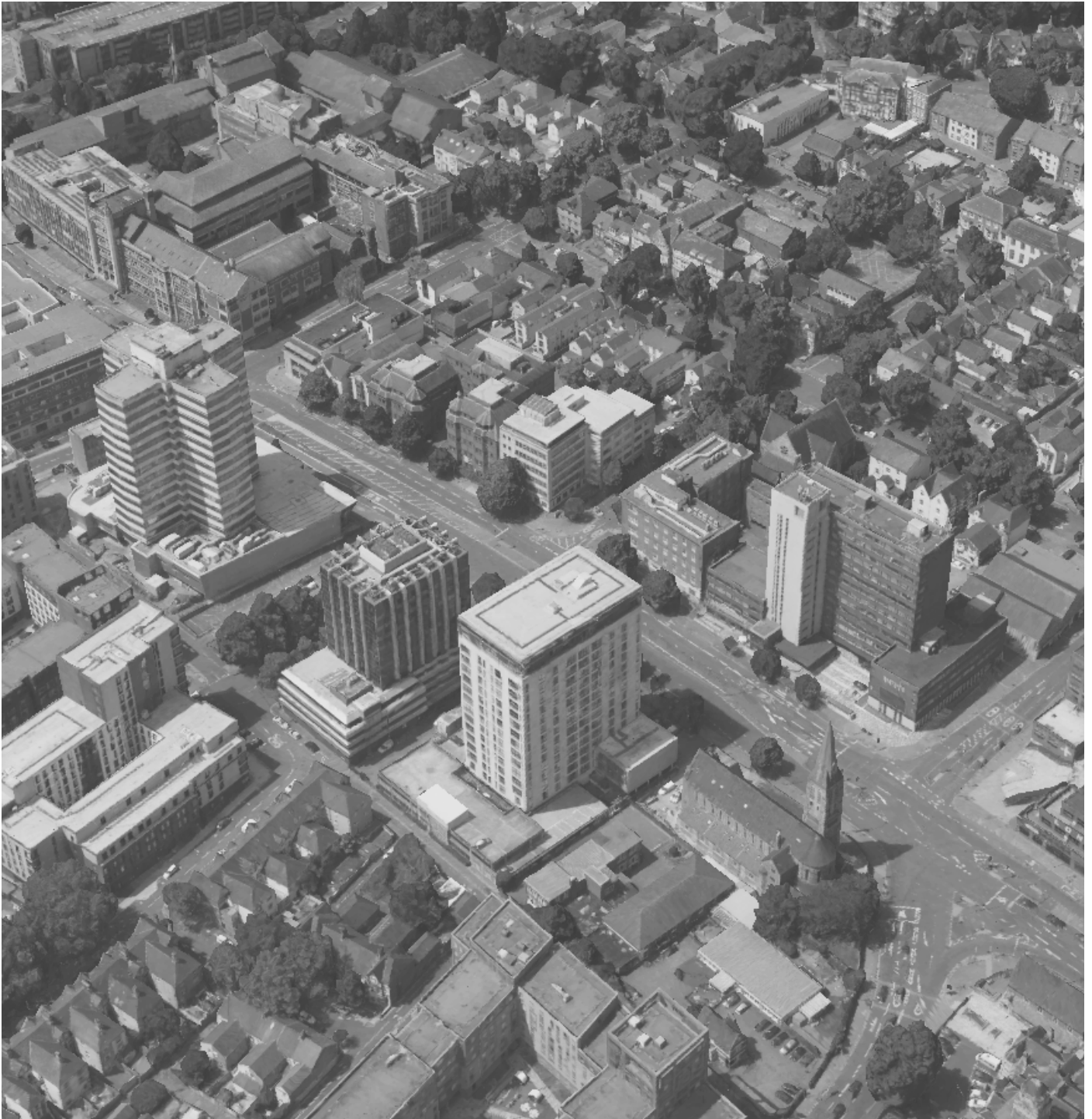




Ty Cambria, Cardiff Green Infrastructure Strategy

06.08.26 | RB26-0009-RP-L-0003

1.0 Introduction

R.B.L.A and Wildwood Ecology have been commissioned to provide a Green Infrastructure Statement and ecologists recommendations (see Appendix 1) to support the application for the proposed demolition of existing building and erection of new build Purpose Built Student Accommodation, ground floor commercial space and associated works on land at Ty Cambria, Newport Road, Cardiff

The document will consider:

- PPW Chapter 6, the Environment (Wales) Act and The Well-being of Future Generations (Wales) Act 2015.
- The Nature Recovery Action Plan for Wales - Setting the course for 2020 and beyond.
- Environment (Wales) Act 2016.
- The Flood and Water Management Act 2010 (Schedule 3)
- Planning Policy Wales (PPW) Edition 10 December 2018.
- Cardiff Local Development Plan (2006-2026), Key Policy KP16: Green Infrastructure.
- Cardiff City Council Green Infrastructure SPG 2017
- Cardiff Biodiversity and Resilience of Ecosystems Forward Plan 12019

This report should be read in conjunction with the R.B.L.A Landscape Drawings and Ecological information.

The aim of the landscape is to provide an improved setting for the buildings that is cohesive with the existing public realm, and providing a series of roof terraces that balance the social amenity and biodiversity requirements of the site.

2.0 Existing Site

The development site is located on the corner of Newport Road and East Grove, east of Cardiff city centre. The site is currently an out of use office development which will be demolished. There are three existing street trees to the eastern boundary which will be retained. There is a mature lime tree to the south boundary which will also be retained.

3.0 Green Infrastructure Strategy

Green infrastructure (G.I) can be defined as “a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities”. These multifunctional elements aim to improve biodiversity, be climate resilient, sustainable, provide amenity and encourage healthy lifestyles.

4.0 Biodiversity

It is intended that the new planting will have a positive effect on biodiversity by introducing planting to a previously all hard environment. Roof terraces will also host biodiversity enhancing features such as habitat hotels, log piles and wildflower seeding and native hedgerows. Pollinating plants will be introduced to amenity focused terraces to enhance insect life.

5.0 Climate Resilience and Sustainability

The proposals include multi-functional areas, such as permeable paving and planting beds within the public realm to enhance drainage capacity, a series of roof terraces featuring carefully selected planting species which are proposed to enhance the ecology and biodiversity of these areas. All these landscape features combine a visual amenity and biodiversity offer.

A range of tree, shrub and perennial species have been selected that are appropriate to the sites location and aspect, taking into consideration the potential effects of climate change to ensure resiliency on site. Including a diverse planting scheme will ensure that the planting has the potential to thrive during periods of both dry and wet weather. It is not anticipated that the planting will require regular watering after the establishment period, however the client may wish to water planting during periods of extremely dry weather to maintain the visual amenity of the site.

6.0 Amenity and Healthy Lifestyles

The proposals aim to provide amenity for the users whilst also benefiting wildlife. The roof terraces enhance the amenity and ecological value whilst providing outdoor spaces for socialising. The public realm fits into a wider network of public realm improvements along Newport road, increasing tree canopy and SUDs planting.

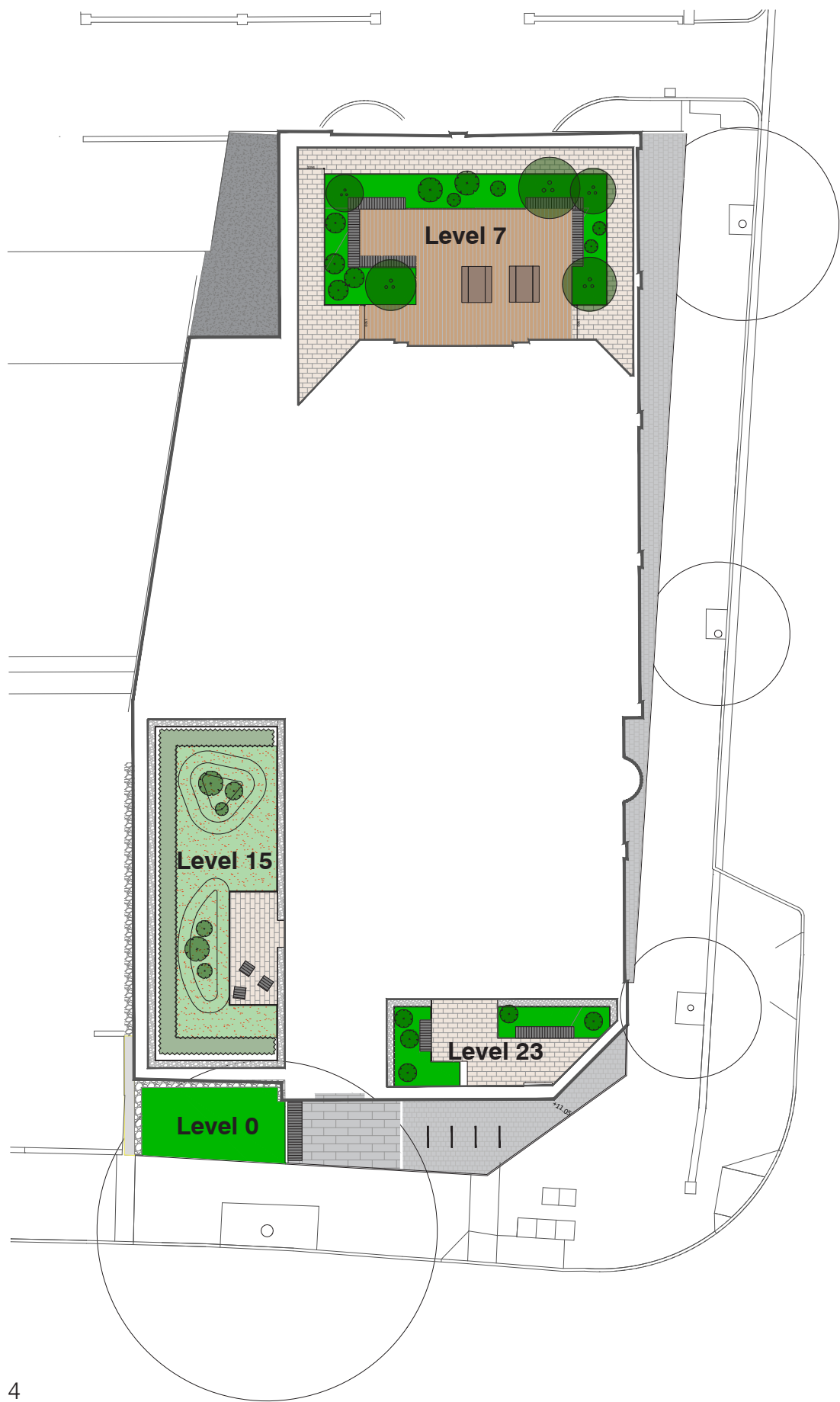
7.0 Landscape Proposals

The landscape proposals aim to enhance site and reflect the Green Infrastructure strategy'. Soft landscaping is integrated into the site wherever possible to enhance the habitat offer of the development whilst improving permeability and drainage .

The retention of the trees adjacent to the site is integral to the public realm design, whilst also improving the health of the trees via increased permeability of the surface and the root zones. This is achieved by introducing permeable paving and planting beds to enhance the health and longevity of the existing trees.

A range of robust, colourful and varied amenity shrub and perennial planting has been selected. Species that produce flowers or berries have been selected together with those from the RHS 'Perfect for Pollinators' list to ensure that they also provide maximum benefit wildlife and create visual amenity. It is anticipated that the above measures will provide a landscape that is beneficial to the users, respects the existing environment and provides a species rich ecologically biodiverse habitat.

7.0 Landscape Proposals



8.0 Conclusions

Assessment of the existing landscape has been undertaken, existing features identified and measures to retain and enhance included within the proposals.

In line with the relevant legislation and planning policy specific to GI, it is considered that the development proposals are capable of providing a net gain to biodiversity, especially when considering the limited habitat offer identified in the baseline. This will be provided through the provision of high-quality habitats on site, particularly the new tree/shrub planting across the public realm and roof terraces. These will also provide modest contributions to the surrounding GI network, thereby increasing 'stepping stone' opportunities for a range of urban-specialist faunal and floral species.

4 RECOMMENDATIONS, COMPENSATION AND ENHANCEMENTS

- 4.1 No significant impacts or effects on important ecological features are anticipated to result from the proposed development. Consequently, no further recommendations or compensatory measures are proposed.
- 4.2 Due to these resulting impacts and effects, the following recommendations and/or compensation measures are suggested:

Recommendations / compensation measures

Designated sites

- 4.3 Designated sites in the vicinity of the site were sufficiently well separated so that no impacts on their designated features were anticipated as a result of the proposed development, **in-line with core policy 23 of Cardiff Local Plan.**

Priority habitats

- 4.4 In the absence of mitigation, the proposed development could impact on the retained mature street trees during demolition and construction. It is recommended that a BS5837 tree survey is undertaken and an Arboricultural Method Statement produced by a suitably qualified arboriculturist, to demonstrate the feasibility of retaining adjacent street trees and how the above-ground and below-ground structures of the trees will be protected throughout the demolition and construction phases of work, with Arboricultural Clerk of Works where deemed necessary;
- 4.5 The proposed development will not likely impact any other habitats.

Bats

- 4.6 Due to the sub-optimal suitability of Features 1 and 2 to support bats, a pre-works inspection by a suitably qualified ecologist with an endoscope is thought proportionate to determine bat presence/absence prior to removal. Ideally, the pre works inspection would be undertaken within the bat active season between May- September.
- 4.7 Features (e.g. lead flashing) will be soft-stripped by hand and checked for bats prior to demolition.
- 4.8 **If a bat, or evidence of bats, is found during the pre-works assessment, works must cease immediately and an ecologist should be contacted. A European Protected Species Licence (EPSL) from Natural Resources Wales (NRW) would then be required before works can proceed.**
- 4.9 All UK bats are nocturnal species, and some species are light-averse (horseshoe bats, brown long-eared and Myotis particularly so). Artificial lighting of foraging and commuting routes is known to act as a barrier to bats and fragment otherwise suitable habitats, causing a negative impact on their local populations. Although some or all of the above listed light-averse species were not observed to commute at and around the site, it is still prudent to reduce as much additional light spill as possible to avoid impacting upon any, if any, foraging and commuting bats that might be present.

- 4.10 As areas of the site will require new lighting, a sensitive lighting plan will be produced, demonstrating consideration for bats with dark flight lines retained to ensure the proposed development would not have a detrimental effect on bats commuting/ foraging along nearby habitat. The external works for the proposed development will be undertaken during daylight hours only.
- 4.11 Suggestions for mitigating the light impact on bats are outlined in Guidance Note 08/23 - 'Bats and artificial lighting in the UK; Bats and the built environment series' (The Bat Conservation Trust, BCT, and the Institution of Lighting Professionals, ILP). These are summarised in the appendices.

Birds

- 4.12 If buildings or habitats suitable for nesting birds are to be removed, then works will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a nesting bird check will be required; carried out by a suitably qualified person. Active nests will be protected by a suitable buffer, as directed by the ecologist, until the young have fledged, as confirmed by the ecologist.
- 4.13 The roof provided good nesting habitat for gull species; therefore, deterrents e.g. netting and spikes must not be installed on the new building.

Hedgehog/other small mammals

- 4.14 Following demolition, during the construction of the new building, there could be impacts on hedgehog or urban fox.
- 4.15 Any excavations should be covered overnight or fitted with a ramp to allow any trapped wildlife to escape and pipes will be capped. Any onsite chemicals are to be properly stored away within a locked shed/ building overnight to avoid any spillage.

Enhancements

- 4.16 Local authorities have a duty to seek to maintain **and enhance** biodiversity in the exercise of their functions.
- 4.17 Native species of local provenance, or ornamental species with known wildlife value, shall be used for all new planting on site. Artificial turf shall not be used in any circumstances, as it adversely affects ecological value, and does not support habitat creation or biodiversity enhancement.
- 4.18 Further onsite habitat retention, creation or enhancement may be required as part of the required net benefit for biodiversity (NBB):
- Ensure light spill is effectively managed in onsite and offsite habitat in order to for nocturnal species (such as badger and bats).
 - Where possible, any offsite habitat creation occurs within the B-Lines initiative, a nationwide network of 'pollinator pathways' aimed at ensuring pollinator populations do not face adverse impacts resultant from habitat fragmentation.

- Use of native species of local provenance and avoidance of non-native species in any planting areas.
- Should plans change and any trees need to be removed, they will be replaced at a ratio of at least 3:1 in line with Planning Policy Wales – Ed. 12.
- Incorporation of a well-designed SuDS (Sustainable Drainage Systems), such as rain gardens or green roofs.

4.19 The proposed development plans indicate several areas within the new building that could incorporate the following habitat creation.

- First floor:
 - Wildflower planting – Sedum supply ‘wildflower seeds for green roofs’, or equivalent UK mix if this particular brand is not available, will be used;
- Seventh floor:
 - Multi-stem trees – naturally compact species that tolerate shallow planting, high winds and urban pollution – common hazel, common hornbeam, field maple, and silver birch.
 - Shrubs (native species or ornamental species of known wildlife value) – provide year-round shelter and sustenance for insects, birds etc – barberry, dwarf juniper, elder, guelder rose, heather, honeysuckle, and lavender.
 - Herbaceous perennials:
 - low growing – selfheal, biting stonecrop, bird’s-foot trefoil, sea campion, and thyme; and
 - upright and mid-height – viper’s bugloss, kidney vetch, oxeye daisy, small scabious, yarrow,
- 15th floor:
 - Shrubs – as above;
 - Native hedgerow – compact, tough and wind-tolerant species - dog rose or guelder rose (c.15%), field maple (c.20%), hawthorn (c.50%), and hazel (c.15%);
 - Wildflower planting – as above; and
 - Insect posts and bee hotels.
- 23rd floor:
 - Shrubs – as above; and
 - Herbaceous perennials – as above.

4.20 Insect posts and bee hotels will be incorporated into each floor with habitat creation (they must be placed at 1 to 1.5 from the ground onto stable wall, fence post or tree, ideally on a south/south-east aspect, and be within 100 to 300 metres of flowering plants). Solitary bees have a short foraging range and prefer food sources close to their nests;

4.21 A SuDS scheme can be a tool for enhancing local biodiversity and supporting wildlife, and contribute to Net Benefit to Biodiversity (NBB) and Green Infrastructure (GI) by:

- Enhancing existing habitats and species in the local area;
- Providing multi-functional green infrastructure;
- Helping to delivering local biodiversity objectives;
- Connecting habitats, thereby supporting wider ecosystem resilience and climate change adaptability; and
- Creating new, diverse, self-sustaining local ecosystems.
- Examples of SuDS features could include green roofs, ponds, rain gardens, bioretention areas, filter strips, swales, attenuation basins and wetlands.

4.22 SuDS will consider the species that may already be present on or near a site and existing habitats such as woodland, scrub, or grassland will be retained or created to provide refuge for wildlife. Including flowering native species will encourage pollinators, which will in turn provide a food source for birds, bats and other small mammals.

4.23 Additionally, ongoing management of SuDS is likely to be required, with wildlife as a key objective. A Habitat Management Plan may be needed to detail maintenance actions with consideration for any protected species and habitats on site. Further information and guidance regarding SuDS and biodiversity can be found at:

- https://www.susdrain.org/delivering-suds/using-suds/benefits-of-suds/Biodiversity_and_ecology
- <https://www.wwt.org.uk/uploads/documents/2019-07-22/1563785657-wwt-rspb-sustainable-drainage-systems-guide.pdf>
- https://freshwaterhabitats.b-cdn.net/app/uploads/2024/01/UCL_FHT_pond_conservation_guide.pdf

4.24 A Habitat Management Plan is recommended to detail how the created habitats onsite will be managed.

4.25 Bird nesting boxes and bat roosting boxes will be incorporated within newly constructed buildings and boundary features with boxes at a rate of two per floor (NB it is not necessary that each floor has two boxes placed upon it, but that the equivalent number be applied across the development, and at a ratio of 50:50 to bat and bird boxes).

4.26 The following bird and bat box enhancements are recommended:

- A range of box types will be used to provide opportunities for a number of species. The following designs are recommended (or similar, if they are not available) (Suggested locations are shown in Appendix III Figures 4-7).
 - Bats – inbuilt bat boxes. E.g. Ibstock Bat Box B, Ibstock Bat Box C, Schwegler 2FR bat rube, Wildcare Integrated Eco Bat Box, Habitat bat boxes and access tiles (various faces);
 - Birds - sparrows (Woodstone Sparrow Nest Box, Schwegler 1SP Sparrow Terrace, Wildcare House Sparrow Nest box);

- Birds - swifts (S brick, Vivara Pro Woodstone Swift Box, Ibstock Swift Eco, Cambridge Swift Brick, Schwegler 1A, Schwegler 18, Schwegler 16, Schwegler 1MF); and
 - Birds - house martins and swallows (Woodstone single chamber house sparrow, Esco House Martin Nest Box, Eco Swallow Nest Bowl, Woodstone House Martin Nester, Schwegler No.9B Double House Martin Nest, Schwegler 10 Swallow Nest).
 - Integrated swift nest bricks will be installed in clusters 2-3 in the north, east and west gable ends or close under the eaves away from windows and doors, at a height of 4m+, with clear flight access and no protruding ground floor roofs such as garages. [Swift Bricks - Cheap & Easy!](#)
- 4.27 Parapets should also be installed on roof terraces, particularly where these do not form part of common or public areas, to provide shelter for gull species that are likely to nest on the building. Bird deterrent measures, such as netting or spikes, must not be used.