



Preliminary Ecological Appraisal and Preliminary Roost Assessment

Great Brighams Mead, Vastern Road, Reading, Berkshire RG1 8DJ

Kings Oak Miami LLP

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Kings Oak Miami LLP to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Great Brighams Mead, Vastern Road, Reading, Berkshire RG1 8DJ (hereafter referred to as “the site”). The survey was required to inform a planning application for ‘*Construction of a two-storey roof (third and fourth floor) extension to accommodate 100 aparthotel rooms (Use Class C1) with associated parking, cycle stores and bin stores*’ (hereafter referred to as “the proposed development”).

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 7 of this report.

Ref	Summary of Survey Findings	Foreseen Impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>
Habitats and flora	There are no notable habitats within the site but priority habitats are present within 1 km of the site, the closest being deciduous woodland located ~520 m from the site. The existing habitats on site comprise non-native trees and shrubs.	No direct impacts to any notable habitats are anticipated due to the distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers. Pollution could enter the River Thames and nearby trees could be impacted during construction. As the plans are currently understood, the trees and shrubs on site will be retained.	A construction environmental management plan should be produced to ensure that pollution from dust and chemicals do not enter the River Thames or impact the trees located on site or nearby.
Roosting bats (B1)	Building B1 has moderate value for roosting bats. There are external roosting features consisting of raised ridge tiles located on the roof of the building. These features may support roosts of common crevice dwelling bat species such as common pipistrelle. There was no evidence of bat roosting activity located within the building. In addition, the roof spaces are well-sealed with no gaps that bats could use to enter the building. It is highly unlikely that bats are roosting within the roof space. The MAGIC database search revealed that four EPSLs for bats have been granted within a 1 km radius of the site which involved the destruction of common pipistrelle, soprano pipistrelle and Daubenton’s bat roosts. The River Thames is located approximately 50 m to the north of the site and is a bat foraging	The proposed development will result in the removal of the roof of B1. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely absence of a bat roost in the building. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey. Surveys should be a minimum of two weeks apart. Eight surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted.

	resource which increases the likelihood of bats roosting within the noted external features on B1.		
Foraging and commuting bats	The vegetation along the site boundary could be used by commuting bats and link with nearby roosts and the River Thames.	If the plans involve the removal of boundary vegetation such as trees and hedgerows, bat commuting routes could be impacted. New lighting on site could impact bat activity. Due to the urban location of the site, impacts from new lighting are likely to be limited.	Bat activity within the site will be recorded during the roost surveys of B1 and that this will inform any mitigation or compensation measures that may be necessary, should vegetation removal be necessary.
Hedgehog	Due to the urban location of the site, there is a low possibility that hedgehogs will be present on site or within nearby habitat.	Commuting hedgehogs could become trapped in excavations.	As a precautionary measure, the following recommendations are made to reduce harm to any mammals such as hedgehogs, during the development phase of the project. - Any trenches dug should either be covered at night or have a rough sawn plank placed in them to act as a ramp for hedgehogs or any other wildlife which may fall in. - Security lighting to be directed away from the boundary vegetation. - Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations
Birds	The trees and hedgerows on site provide suitable habitat for nesting urban bird species such as pigeon and house sparrow. In addition, birds may forage on site. Although no nests were present in the buildings at the time of the survey, birds may begin nesting within buildings on site.	Birds may be impacted if the proposed development results in the loss of trees and hedgerows or if development works occur in close proximity to the boundary habitats. Birds may also begin nesting within the building. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and vegetation should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Kings Oak Miami LLP to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Great Brighams Mead, Vastern Road, Reading, Berkshire RG1 8DJ (hereafter referred to as “the site”). The survey was required to inform a planning application for ‘*Construction of a two-storey roof (third and fourth floor) extension to accommodate 100 aparthotel rooms (Use Class C1) with associated parking, cycle stores and bin stores*’ (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Context

The site is located at National Grid Reference SU 71370 74217 and has an area of approximately 1 ha comprising buildings, hard standing, broadleaf trees and shrubs. It is surrounded by residential and commercial areas and associated infrastructure with the River Thames located approximately 50 m to the north of the site.

A site location plan is provided in Appendix 2.

1.3 Scope of the Report

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of this report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.

- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 1 km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

2.2 Field Survey

The survey was undertaken by Joe Slade BSc (Hons) MRSB (Natural England protected species licence numbers: bats 2017-32515-CLS-CLS; great crested newt 2016-26549-CLS-CLS) on 30 June 2023.

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out UK Habitat Classification User Manual (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA focussed on the large commercial building which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the building for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the building was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

For any surveyed trees:

A visual inspection was undertaken from ground level using binoculars and, where accessible and safe to do so, an internal inspection of any features which bats could use for roosting was completed using an endoscope, torch and ladders.

Suitability Assessment

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings and Table 2 for trees below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

Table 2: Features of a tree that are correlated with use by bats

Classification	Feature of tree and its context
Moderate to high	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators.
Negligible	Unsuitable for use by bats.

2.3 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

The survey was undertaken in summer when foliage was present on the trees and this obscured visibility in places. The turret roofs on building B1 could not be observed due to their height. Therefore, bat roosting features may have been missed. Further bat surveys have been recommended to address this limitation.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

No statutory were identified within 1 km of the site.

3.2 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 3.

Table 3: Weather conditions during the survey

Date: 30/06/2023	
Temperature	19°C
Humidity	70%
Cloud Cover	80%
Wind	2 mph
Rain	None

Habitats and Flora

The following habitats are present within and adjacent to the site:

- *u1d-11 – scattered trees*
- *w1g6 – line of trees*
- *u1b – urban developed land sealed surface*
- *u1b5 – buildings*
- *u1d-1160 Introduced shrubs*
- *u1e-69 built linear features*
- *h2b hedge*

A description and photographs of each habitat are provided in Table 4.

No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site.

Table 4: Description and photographs of habitats within and adjacent to the site

Habitat Type	Habitat description	Photograph
<i>u1b – urban developed land sealed surface</i> <i>u1d-11 - scattered trees</i> <i>u1b5 – buildings</i>	Trees on site comprised semi-mature non-native species including lilac. The trees bordered areas of hard standing paving and car parking. The trees have no features that could support wildlife such as holes or cracks. Small plant patches consisting of introduced shrubs are present beneath the trees. A large commercial building occupies the majority of the survey site. Paving and carpark areas surround the building.	
<i>u1d-1160 - Introduced shrubs</i> <i>u1b5 – buildings</i> <i>u1b – urban developed land sealed surface</i> <i>u1d-11 - scattered trees</i>	Areas of soft landscaping border the pavements and car parks on site. Plant species within these areas include privet, box-leaved honeysuckle and cotoneaster. Some small patches of nettle are present around the site boundary.	

<i>u1d-1160 - Introduced shrubs</i> <i>u1b5 – buildings</i> <i>u1b – urban developed land sealed surface</i> <i>u1d-11 - scattered trees</i>	The picture opposite shows an example of a semi-mature lilac tree within the carpark area to the north of the site.	
<i>u1d-1160 - Introduced shrubs</i> <i>u1b5 – buildings</i> <i>u1b – urban developed land sealed surface</i> <i>u1d-11 - scattered trees</i> <i>h2b – hedge, other</i>	This picture shows the northwestern boundary and introduced shrubs.	

<i>u1e-69 - built linear features</i> <i>w1g6 - line of trees</i> <i>h2b - hedge, other</i>	A line of semi-mature London plane trees lines the northwestern site boundary. The trees bordered areas of hard standing paving and car parking. The trees have no features that could support wildlife such as holes or cracks. Introduced shrubs and non-native hedgerows are present beneath the trees. An iron fence lines the site boundary.	
<i>u1d-160 - Introduced shrubs</i> <i>u1b5 - buildings</i> <i>u1b - urban developed land sealed surface</i> <i>u1d-11 - scattered trees</i> <i>h2b - hedge, other</i>	The picture opposite shows the site entrance located to the southwest.	

Fauna

Bats

The MAGIC map search revealed four granted EPSLs for bats within 1 km of the site. These were for the destruction of bat roosts involving common pipistrelle located ~1 km to the northeast of the site and ~730 m to the southeast of the site, soprano pipistrelle located ~700 m to the north of the site and Daubenton's bat located ~500 m to the southeast of the site.

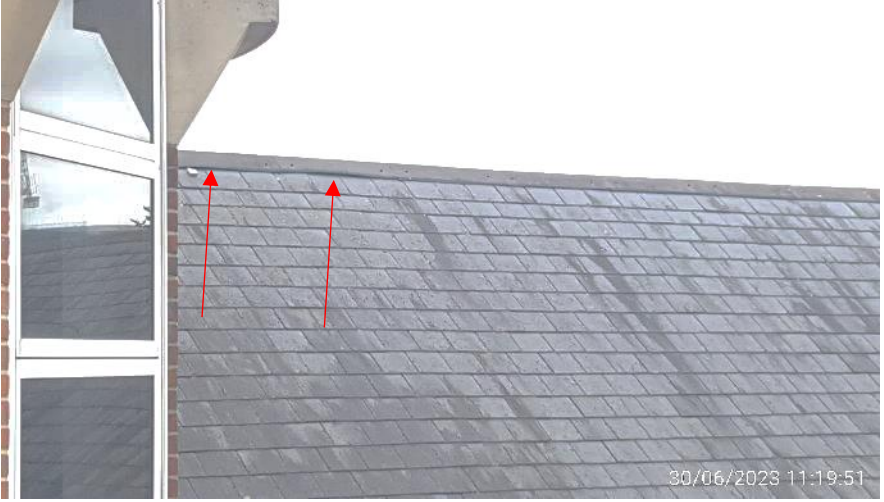
Boundary vegetation including trees and hedgerows are likely to be used by common bat species. These habitats may link bat roosts in buildings to important foraging resources in the wider environment, such as the River Thames which lies ~ 50 m to the north of the site.

The results of the PRA are provided in Table 5. No evidence of roosting bats was identified during the survey.

Table 5: Assessment of the suitability of the site for bats

Feature Ref	Description	Photographs
B1 southwestern elevation (pictured opposite)	B1 is a large three-storey commercial building of brick construction with a pitched and flat-roofed sections of roof clad in slate roof tiles. The building is H-shaped with turret roofs located on the central section of the building. The turret roofs could not be observed due to their height. Therefore, bat roosting features may have been missed. There are roof tiles along the ridges of the building which have gaps beneath them that crevice dwelling bats could roost in. The windows and doors are metal framed and are in good condition with no gaps around the sides that bats could enter. The eaves around the building are well-sealed with no gaps that bats could roost in or use to enter the building. No external gaps were present that bats could use to enter any roof voids.	

B1 - northeastern elevation (pictured opposite)	This picture shows a close-up of the eaves and two pitched gable ends that are located centrally on the roof of the building. The vents on the gables are back by a mesh which prevents birds and bats from entering the building. The central clock turret also has vents which are backed by mesh. No suitable roosting features were noted on the clock-turret.	
B1 - central southeastern elevation (pictured opposite)		

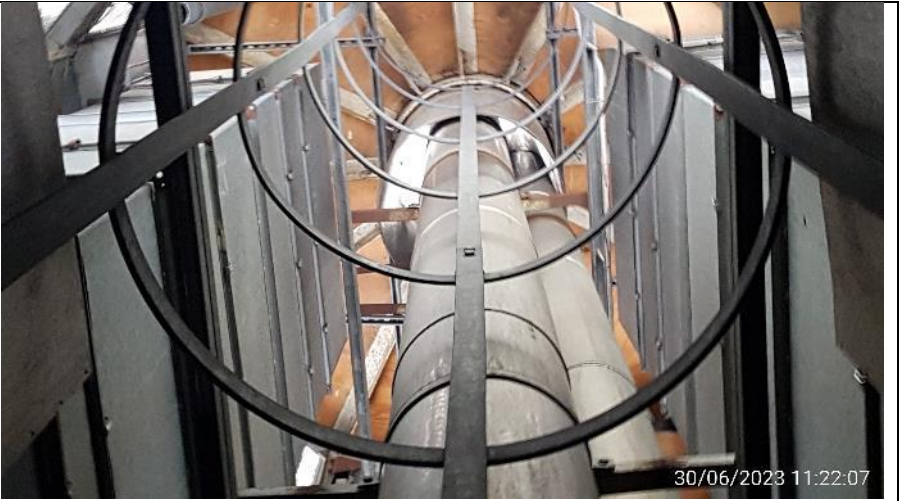
B1 - easternmost gable end (pictured opposite)	This photo shows a close-up of the roof tiles. The red arrows indicate small gaps beneath the ridge tiles that bats could enter.	 A close-up photograph of a roof ridge. Two red arrows point to small gaps between the ridge tiles. The tiles are dark grey and the sky is visible in the background. A timestamp '30/06/2023 11:16:38' is visible in the bottom right corner.
B1 - central northwestern elevation (pictured opposite)	This photo shows a close-up of the roof tiles. The red arrows indicate small gaps beneath the ridge tiles that bats could enter.	 A close-up photograph of a roof ridge. Two red arrows point to small gaps between the ridge tiles. The tiles are dark grey and the sky is visible in the background. A timestamp '30/06/2023 11:19:51' is visible in the bottom right corner.

B1 - southwestern flat-roof (pictured opposite)	The flat roof is lined with a composite liner which is in very good condition with no gaps around the sides that bats could roost in. No other suitable roosting features are present on the flat roofs.	
B1 - central pitched roof section, viewed from the northeast (pictured opposite)		

B1 - northeastern elevations, viewed from the north of B1 (pictured opposite)		 A photograph of a multi-story brick building with a prominent curved glass facade. The building is viewed from a low angle, looking up. A black street lamp is visible in the foreground. A timestamp in the bottom right corner reads "30/06/2023 11:43:07".
B1 - eaves	This photo shows an example of the eaves which are sealed with no suitable roosting features.	 A close-up photograph showing the underside of a building's eaves. The surface is a light-colored, possibly metal or composite material, and appears to be sealed. A wooden beam is visible on the right side. A timestamp in the bottom right corner reads "30/06/2023 11:13:56".

B1 - turret	This photo shows the easternmost turret, viewed from the southeast of B1.	 A photograph of a cylindrical brick turret with a circular window structure at the top, viewed from the southeast. The turret is made of red brick and has a concrete band around the window area. The sky is overcast. A timestamp in the bottom right corner reads "30/06/2023 11:52:18".
B1 - walls	Some gaps are present between the concrete slabs where mortar has degraded. Close inspection of the gaps with binoculars revealed that the gaps are shallow (< 3 cm) and are not suitable bat roosting site because they are exposed to wind and rain ingress.	 A close-up photograph of the corner of a brick wall showing gaps between concrete slabs. The wall is made of red brick and has a concrete band around the corner. The gaps are visible between the concrete slabs. A timestamp in the bottom right corner reads "30/06/2023 11:43:05".

B1 - interior	There are currently no loft spaces within the building as roofing works are underway. The roof space is vaulted and could be inspected from the third floor. The roof structure is of metal construction and the roof is backed with metal sheeting. No gaps are present that bats could use to enter the roof spaces.	 A photograph showing the interior of a roof structure. It features a network of light-colored metal beams and supports. The roof is covered with grey metal sheeting. A white cable runs diagonally across the frame. A timestamp in the bottom right corner reads "30/06/2023 11:13:28".
B1 - interior	The picture opposite shows the central pitched section of roof.	 A photograph showing the interior of a roof structure, similar to the one above. It shows metal beams and supports. A purple cable is visible running across the frame. A timestamp in the bottom right corner reads "30/06/2023 11:15:09".

B1 - interior	The picture opposite shows the central clock turret. Daylight enters the roof space through the vents around the sides of the turret. As such, there are few dark areas in which bats could roost. Mesh is present around the sides of the roof space which prevents birds and bats from entering the roof space.	 30/06/2023 11:22:07
B1 - interior	The picture opposite shows the roof space within a turret which is completely sealed with no gaps that bats could roost in or use to enter the building.	 30/06/2023 11:21:17
B1 – suitability assessment	No evidence of bat activity such as droppings or feeding remains were found within the building or located externally. There are external roosting features that bats could roost in which consist of gaps beneath the ridge tiles. Crevice dwelling bats could enter the gaps beneath the ridge tiles and roost externally on the building. The River Thames is located within 50 m of the site which increases the likelihood of bats roosting within the noted external features. The building was assessed to have moderate habitat value to support roosting bats.	N/A

B2 – B4 (B2 pictured opposite)	Buildings B2 – B4 are brick-built utility buildings with flat roofs. The buildings are present on site but are separate to the development site and privately owned. These buildings do not fall within the scope of the proposed development and therefore were not subject to a detailed preliminary roost assessment.	
B2 – B4 (B3 pictured opposite)		
Bin stores	Elsewhere on site there are two bin stores which are simple structures with timber roofs. The bin stores do not provide suitable habitat for roosting bats and have negligible roost value.	

Other Species

An assessment of the suitability of the site for protected or notable species is provided in Table 6.

Table 6: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability
Amphibians	There are no ponds located within 500 m of the site that are not beyond major barriers to dispersing amphibians. Therefore amphibians are highly unlikely to be present on site.

Reptiles	The site does not present any opportunities for reptiles due to having very limited suitable habitats and the urban location of the site with a lack of habitat connectivity to the wider landscape. Reptiles are subsequently considered highly unlikely to be present.
Badgers	The site does not present any opportunities for badgers due to having no suitable habitats and the urban location of the site with a lack of habitat connectivity to the wider landscape. Badgers are subsequently considered highly unlikely to be present.
Hazel Dormouse	The site does not present any opportunities for dormice due to having no suitable habitats and the urban location of the site with a lack of habitat connectivity to the wider landscape. Dormice are subsequently considered highly unlikely to be present.
Hedgehog	The site does not present any opportunities for hedgehogs due to having no suitable habitats. However, nearby gardens could provide foraging habitat for hedgehogs. The presence of commuting hedgehogs within the site cannot be discounted.
Otter	The River Thames is located approximately 50 m to the north of the site which provides suitable otter habitat. However, the site is unsuitable for otter due to a lack of riparian habitats and is not connected to the River Thames. Therefore, otter are considered highly unlikely to be present.
Water Vole	The site does not present any opportunities for water vole due to having no suitable habitats and the urban location of the site with a lack of habitat connectivity to the wider landscape. Water vole are subsequently considered highly unlikely to be present.
Birds	Common bird species may nest within the trees on site. The site is unsuitable for significant assemblages of breeding or wintering birds and for priority bird species due to its urban location and low value habitats.
Invertebrates	The trees and shrubs on site could support widespread species of invertebrates and pollinators. The site is unsuitable for significant assemblages of invertebrates due to its urban location and low value habitats.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey) and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 7 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise change of use of the commercial building to residential apartments.

Table 7: Evaluation of the site and any ecological constraints

Ref	Summary of Survey Findings	Foreseen Impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021)</i>
Designated sites	The site is not subject to any statutory designation. There are no statutory designated sites within 1 km of the site.	No impacts to designated sites are anticipated due to the distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.	None.	None.
Habitats and flora	There are no notable habitats within the site but priority habitats are present within 1 km of the site, the closest being deciduous	No direct impacts to any notable habitats are anticipated due to the distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers. Pollution could enter the River Thames and nearby trees could be impacted during construction.	A construction environmental management plan should be produced to ensure that pollution from dust and chemicals do not enter the River Thames or impact the trees located on site or nearby.	Habitat creation and enhancement opportunities will be detailed within the landscape strategy or ecological enhancement plan.

	woodland located ~520 m from the site. The existing habitats on site comprise non-native trees and shrubs.	As the plans are currently understood, the trees and shrubs on site will be retained.		The following habitat creation and enhancement opportunities could be incorporated into the proposed development: • Native tree, hedgerow and shrub planting. Species-specific enhancement opportunities are detailed later in this table.
Amphibians	There is limited suitable amphibian habitat present on site in the form of introduced shrubs. The site is surrounded by walls and fencing which prevents amphibians from entering the site. In addition, there are no ponds located within 500 m of the site which could support protected species of amphibian.	No impacts are anticipated on amphibians, including great crested newt, as a result of the proposed development.	None.	None.
Reptiles	There is limited suitable reptile habitat present on site in the form of introduced shrubs. The site is surrounded by walls and fencing which prevents reptiles from entering the site. In addition, there is no suitable habitat located nearby which could support reptiles.	No impacts are anticipated on reptiles as a result of the proposed development.	None.	None.

Roosting bats (B1)	Building B1 has moderate value for roosting bats. There are external roosting features consisting of raised ridge tiles located on the roof of the building. These features may support roosts of common crevice dwelling bat species such as common pipistrelle. There was no evidence of bat roosting activity located within the building. In addition, the roof spaces are well-sealed with no gaps that bats could use to enter the building. It is highly unlikely that bats are roosting within the roof space. The MAGIC database search revealed that four EPSLs for bats have been granted within a 1 km radius of the site which involved the destruction of common pipistrelle, soprano pipistrelle and Daubenton's bat roosts. The River Thames is located approximately 50 m to the north of the site and is a bat foraging resource which increases the likelihood	The proposed development will result in the removal of the roof of B1. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely absence of a bat roost in the building. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey. Surveys should be a minimum of two weeks apart. Eight surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted. If bat roosts are confirmed in the building one additional survey will be required to inform an EPSL application to Natural England. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	To be confirmed following further surveys on site.
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	of bats roosting within the noted external features on B1.			
Roosting bats (B2 – B4)	Buildings B2 – B4 are brick-built utility buildings with flat roofs. The buildings are present on site but are separate to the development site and privately owned. These buildings do not fall within the scope of the proposed development.	None.	None.	N/A
Foraging and commuting bats	The vegetation along the site boundary could be used by commuting bats and link with nearby roosts and the River Thames.	If the plans involve the removal of boundary vegetation such as trees and hedgerows, bat commuting routes could be impacted. New lighting on site could impact bat activity. Due to the urban location of the site, impacts from new lighting are likely to be limited.	Bat activity within the site will be recorded during the roost surveys of B1 and that this will inform any mitigation or compensation measures that may be necessary, should vegetation removal be necessary.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: Planting of native tree, shrub and hedgerows to increase foraging opportunities.
Badger	Due to the urban location of the site, badgers are highly unlikely to be present on site or in nearby habitat.	No impacts are anticipated on badgers as a result of the proposed development.	None.	None.
Hazel dormouse	Due to the urban location of the site, hazel dormouse is highly unlikely to be present on site or within nearby habitat.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None.	None.

Hedgehog	Due to the urban location of the site, there is a low possibility that hedgehogs will be present on site or within nearby habitat.	Commuting hedgehogs could become trapped in excavations.	As a precautionary measure, the following recommendations are made to reduce harm to any mammals such as hedgehogs, during the development phase of the project. - Any trenches dug should either be covered at night or have a rough sawn plank placed in them to act as a ramp for hedgehogs or any other wildlife which may fall in. - Security lighting to be directed away from the boundary vegetation. - Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations	None.
Otter	Due to the urban location of the site, otters are highly unlikely to be present on site or within nearby habitat.	No impacts are anticipated on otters as a result of the proposed development.	None.	None.
Water vole	Due to the urban location of the site, water voles are highly unlikely to be present on site or within nearby habitat.	No impacts are anticipated on water vole as a result of the proposed development.	None.	None.
Birds	The trees and hedgerows on site provide suitable habitat for nesting urban bird species such as pigeon and house sparrow. In addition, birds may forage on site. Although no nests were present in the buildings at the time of the survey, birds may begin nesting within buildings on site.	Birds may be impacted if the proposed development results in the loss of trees and hedgerows or if development works occur in close proximity to the boundary habitats. Birds may also begin nesting within the building. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building and vegetation should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.	The installation of a minimum of four bird boxes on retained buildings will provide additional nesting habitat for birds e.g. swift bricks. Swift bricks should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.

Invertebrates	The trees, shrubs and hedgerows on site are likely to support widespread species of invertebrates, including some pollinating species such as bees and butterflies.	No impacts are anticipated on notable species or populations of invertebrates as a result of the proposed development.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates: • Native tree, hedgerow and shrub planting. • Planting of pollinator-friendly plant species.
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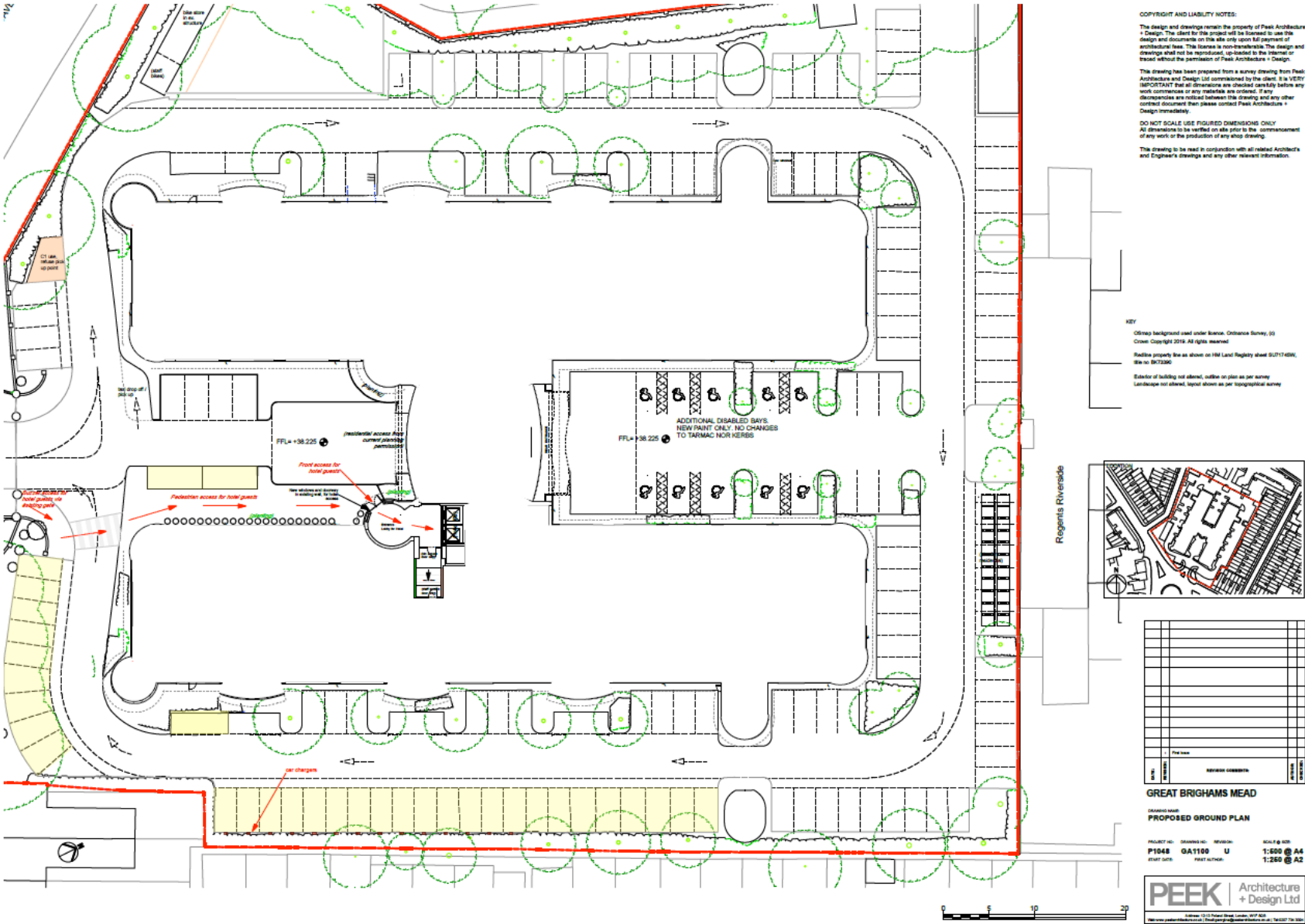
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Appendix 1: Proposed Development Plan



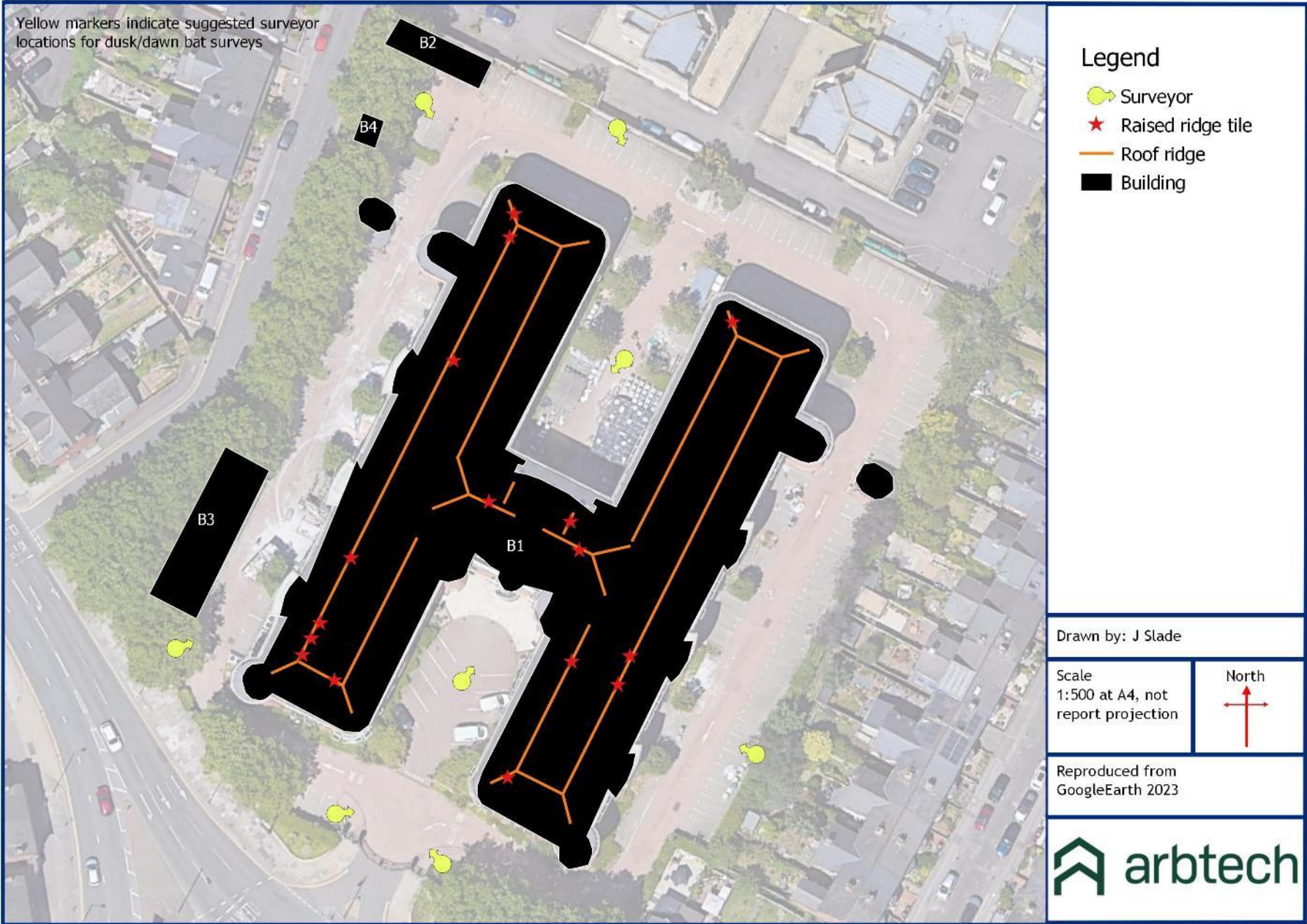
Appendix 2: Site Location Plan



Appendix 3a: Habitat Survey Plan



Appendix 3b: PRA Survey Plan



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

Annex V species (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*”. However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CROW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is not possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Amphibians and Reptiles

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection

- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

It is also classified as Endangered in the IUCN Red List of Endangered Species. As a result of this and other relevant crayfish legislation such as the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, a series of licences are needed for working with White-clawed and non-native crayfish. These are:

- A licence to handle crayfish (therefore survey work) in England
- A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).
- People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.
- Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
 - Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
 - Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

Effects on development works:

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY (ENGLAND)***Environment Act 2021***

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

LOCAL PLANNING POLICY

Reading Local Plan

The Reading Local Plan can be viewed here: [Local Plan Adopted November 2019.pdf \(reading.gov.uk\)](#)

The following planning policies have implications in relation to biodiversity and the proposed development:

EN12: BIODIVERSITY AND THE GREEN NETWORK

On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible.

Development should:

- Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and
- Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.

In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is "no net loss" of biodiversity.

Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.

Reading Biodiversity Plan

The Reading Biodiversity Plan can be viewed here: [Reading Biodiversity Action Plan](#)

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.