



Ecological Impact Assessment

**Atlas Business Park, Simonsway, Wythenshawe,
Manchester M22 5PR**

**Presented to: Ridge and Partners LLP c/o AVIVA
Investors**

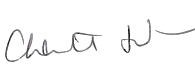
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Non-Technical Summary

Delta-Simons Ltd was instructed by Ridge and Partners LLP % AVIVA Investors (the 'Client') to undertake an Ecological Impact Assessment (EclA) of the proposals for Atlas Business Park, Simonsway, Wythenshawe, Manchester M22 5PR (hereafter referred to as the 'Site'), required to inform a planning application for c.381,300sq. ft of B8 type units (the 'Proposed Development') at the Site.

This EclA addresses the potential effects of the Proposed Development on ecology and nature conservation. The Report describes the methods used to assess the effects; the baseline conditions currently existing at the Site and within the immediate surrounding area; the mitigation measures required to prevent, reduce or offset any significant adverse effects and the likely residual effects after these measures have been adopted, as well as any proposed enhancement measures. A summary of residual effects is provided overleaf.

An ecological desk study undertaken in January 2021 identified no internationally designated statutory sites within 6 km of the Site; no nationally designated statutory sites and no locally designated statutory sites within 2 km of the Site; and three non-statutory designated sites within 2 km of the Site, the closest being Big Wood Site of Biological Importance (SBI) at a distance of 225 m to the west. The Site falls within one or more Site of Special Scientific Interest (SSSI) Impact Risk Zones (IRZ), however, the Proposed Development does not meet any of the criteria for which the LPA would need to consult with Natural England over risks posed by development (for internationally and nationally designated statutory sites). Due to the development's type, small scale and distance from all these designated sites, it is considered unlikely that the Proposed Development would have a significant adverse impact on designated sites.

The habitats on Site were surveyed and assessed for their suitability to support protected/otherwise notable species by Delta-Simons Ltd in January 2021. The Site covers an area of 9.84 ha and comprises woodland, grassland, scrub, scattered trees, bare ground, hardstanding, and buildings bounded by perimeter fencing. There are no Habitats of Principal Importance present on Site. However, the woodland on-Site qualifies as a Manchester Biodiversity Action Plan (BAP) Priority Habitat and fall within the W10 Oak Bracken Bramble Woodland classification. The habitats present on Site are widespread on both a local and national scale, with none of the habitats being considered rare. The proposals will result in the loss of a small proportion of the woodland, and the majority of grassland and scrub from the Site, which are all medium distinctiveness habitats, though it is understood that the majority of boundary vegetation will be retained.

The landscaping plans indicate that this loss of habitat will be in part compensated for through the provision of new native/wildlife-friendly planting within the landscaping strategy. The plants included in the landscape strategy will be carefully chosen in line with best practice guidance to maximise the Site's biodiversity value post-development. It is understood that any remaining net loss in biodiversity is to be dealt with via a suitable mechanism to be agreed between the applicant and the Local Planning Authority (LPA). As such, following this, any impact resulting from the loss of habitat on Site will be negligible and of neutral significance.

The Site was found to be suitable for several protected/otherwise notable species and further surveys were carried out for bats and reptiles. Following further surveys, reptiles were considered likely to be absent from Site. Whilst no bats were recorded emerging from the Site and activity levels were generally low, several mature trees on-Site have features suitable for roosting bats and further surveys and appropriate mitigation will be required.

The construction phase will result in the loss of suitable bird nesting habitat including trees, woodland, and dense scrub. Suitable habitat will be removed either outside the main nesting bird season, or subsequent to a nesting bird check by a suitably experienced ecologist immediately prior to removal. Further, appropriate mitigation through the implementation of the proposed landscaping strategy, and the provision of 20 nest boxes for a range of species, is anticipated to result in a negligible effect for birds in the local area that is of neutral significance. In the operational phase, a suitable management plan (Landscape and Ecological Management Plan or similar) and Bird Hazard Management Plan (BHMP) will be in place to ensure habitats are appropriately managed to ensure negligible effect for birds nesting on Site that is of neutral significance.

The Site is considered to be of low value for foraging and commuting bats. The woodland, grassland, scrub, and scattered trees are suitable for foraging/commuting bats, although it is expected to experience relatively high levels of artificial illumination from streetlights on/adjacent to the Site, in addition to significant disruption from passing planes. Any bats that do make use of the Site are likely to be relatively light-tolerant species only. During the operational phase there is expected to be a negligible effect of neutral significance.

No roosting bats were recorded emerging from Building 1 during the emergence survey; however, damage was noted to Building 2 which is due to be retained, and several mature trees on Site have features suitable for roosting bats, with a total of eleven trees having moderate or high roosting potential such that further survey work on the trees was undertaken between May and August 2023, including multiple aerial assessments and nocturnal surveys of those trees deemed unsafe to climb. No evidence of bat roosts was recorded during the further surveys, with activity levels very low, in keeping with the building surveys. It should be noted that multiple trees were felled before they could be fully assessed for bats, however, it is understood this was undertaken on health and safety grounds as the trees had partially fallen on an electrical substation in the northern extent of the Site.

The habitats on-Site are suitable for foraging and commuting badgers and hedgehogs, and clearance of the Site will reduce in loss of significant habitat for hedgehogs. There is risk that badgers and hedgehogs could become injured or trapped during the construction phase of the works. During the construction phase of works, a precautionary approach to vegetation clearance will be undertaken, and no open pits or trenches will be left uncovered or alternatively without a mammal escape ramp overnight. This measure could be secured through implementation of a Construction Environmental Management Plan (CEMP). A LEMP will be in place in order to ensure retained habitats are managed to maximise foraging and sheltering opportunities for hedgehogs, for at least the next 30 years. If the aforementioned is undertaken, then significant residual effects on bats are not anticipated.

It is concluded that, following the further survey work and Biodiversity Net Gain (BNG) assessment, provided the Proposed Development is built as proposed, and all relevant mitigation is implemented during construction and operation, the impacts of the proposed development will be negligible and of neutral significance.

Summary of Residual Effects

Important Ecological Feature	Geographic Value	Characterisation of Unmitigated Impact	Significance Before Mitigation	Avoidance, Mitigation and Compensation	Residual Effect Significance
Habitats	Local	Habitat loss Damage to structure, roots and health of habitat	Moderate adverse Significant	Adherence to BS5837:2012 Off-site compensation for any net loss (to be agreed with the LPA) Creation of new bird nesting habitat in the form of nest boxes	Negligible Neutral
Birds	Local	Habitat loss Nest destruction/disturbance Noise and vibration	Minor adverse Non-significant	Sensitive timing of works and/or watching brief with regards to the removal of, and works within close proximity to, suitable nesting habitat Creation of new bird nesting habitat in the form of nest boxes Bird Hazard Management Plan Landscape enhancements	Negligible Neutral
Bats	Local	Increased lighting on Site Loss of potential roost sites Loss of foraging and commuting habitat	Moderate adverse Significant	Pre-felling surveys of trees with BRP required for removal Provision of bat boxes on retained trees	Negligible Neutral
Badgers and Hedgehogs	Local	Risk of killing/injury during Site clearance	Moderate adverse Significant	Precautionary approach to clearance Landscaping to increase foraging opportunities	Negligible Neutral

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1.0 Introduction

1.1 Purpose and Scope of the Survey

Delta-Simons Ltd was instructed by Ridge and Partners LLP c/o AVIVA Investors (the 'Client') to undertake an Ecological Impact Assessment (EclA) of an area of Atlas Business Park, Simonsway, Wythenshawe, Manchester M22 5PR (hereafter referred to as the 'Site') to inform a planning application for a full planning application for development of the Site.

The purpose of this report is to:

- Establish baseline ecological conditions at the Site.
- Provide details of ecological mitigation measures incorporated through design evolution as an intrinsic part of the project design.
- Detail any ecological mitigation measures to be implemented during Site clearance and construction.
- Identify any residual ecological effects after avoidance and mitigation measures have been considered.
- Identify any compensation measures required to offset residual effects.
- Provide recommendations for how mitigation and compensation may be secured and monitored.
- Set out details of ecological enhancement measures to be included within the Proposed Development.
- Provide sufficient information to determine whether the project accords with relevant nature conservation policies and legislation and, where appropriate, to allow conditions or obligations to be proposed by the relevant authority.

The Site location and the red line boundary are shown in Figure 1.

1.2 Site Description

The Site is centred at Ordnance Survey (OS) grid reference SJ 83846 85984, to south of Wythenshawe in Greater Manchester, and north of Manchester airport. The Site covers an area of 9.84 ha and comprises scattered scrub and poor semi-improved grassland throughout, scattered trees, bare ground in the form of an access road at the entrance to the Site, and the footprint of previously developed areas of the Site which includes a spoil heap. In addition to these, there is fencing around the Site boundary, an earth bank in the southwest corner, and two small buildings at the Site entrance in the north of the Site.

The Site is bounded by Simonsway to the north and Styal Road to the east both with associated footpaths, scattered trees, and grassed verges, with residential areas beyond. To the south, is a continuation of grassland with a large expanse of hardstanding, in use as airport parking, beyond, whilst to the east is Atlas Business Park, with a complex of hardstanding, buildings, shrubs and trees.

The habitats present on Site are shown in Figure 2.

1.3 Proposed Development

It is understood that the Proposed Development will comprise B8 type units at the Site, based on plans provided by Bea Landscape Design Limited (Drawing 1 - 22-103-P-03A@A0 Soft Landscape Proposals). (Drawing 1).

The construction phase will comprise:

- Clearance of the majority of the on-Site habitats, including grassland, scrub, and scattered trees whilst sections of the boundary trees and scrub are planned for retention.

The operational phase will comprise:

- Use of buildings for B8 purposes; and
- Management of retained trees and proposed habitats in accordance with a Landscape and Ecological Management Plan (LEMP).

2.0 Legislation & Policy Summary

Planning guidelines, international commitments, legislation and planning policies relevant to the protection, conservation and enhancement of nature conservation interests are detailed below.

2.1 National Policy and Guidance

Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of legislation, including:

- National Planning Policy Framework (NPPF, revised 2021);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerow Regulations 1997; and
- The Protection of Badgers Act 1992.

Where relevant, this assessment takes account of the legislative and policy protection afforded to specific habitats and species. Delta-Simons Ltd do not purport to provide specialist legal advice and where necessary the reader should also consult the original legislation, references to which are included in Appendix A.

2.2 Local Policy and Guidance

Local planning policies relating to ecology are generally based on national planning policy, the conservation of species protected under the above legislation and the protection of designated sites. However, relevant local policy and guidance documents are outlined below.

The Greater Manchester Biodiversity Action Plan

The Greater Manchester Biodiversity Action plan (GM BAP) aims to provide an over-arching document across all ten districts in Greater Manchester; these are Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Trafford, Tameside, and Wigan. The overall aim of the GM BAP is:

"To promote the conservation, protection and enhancement of biological diversity in Greater Manchester for current and future generations".

The Greater Manchester audit identified those species and habitats that are of local conservation importance and require action in order to conserve and protect them. Those habitats and species selected for the GM BAP were included for the following reasons:

- They are priority habitat or species within the UK BAP and occur in the GM area.
- They are considered to be of conservation concern locally within GM.

3.0 Methodology

The baseline for the EclA has been established through a combination of desk study and field surveys.

3.1 Scope of the Assessment and Zone of Influence

The features considered for this assessment were designated sites, Habitats and Species of Principal Importance for conservation, and species protected by wildlife legislation.

Given the size and location of the Site, the zone of influence was taken to be the Site boundary and its immediate environs only. The exception for this was for designated sites and great crested newt (GCN) *Triturus cristatus* details of the zone of influence for these features is provided in Section 3.2, below.

3.2 Desk Study

3.2.1 Data Search

In 2021, available records of protected and notable species were collated from the local record centre, Greater Manchester Ecology Unit (GMEU) along with the non-statutory designated sites from within 2 km of the Site centre.

A search for internationally, nationally, and locally designated statutory sites for nature conservation was undertaken using the Multi-Agency Geographic Information for the Countryside (MAGIC) website. The search radius was 6 km from the Site centre for internationally designated statutory sites and 2 km from the Site centre for nationally and locally designated statutory sites. A search for non-statutory ancient woodland was undertaken within 2 km of the Site centre, and an assessment was made regarding the location of Habitats of Principal Importance (HPIs) on or near the Site using MAGIC.

A search for species data available on the MAGIC website was undertaken (i.e. granted European Protected Species Licence applications, GCN Class Survey Licence Returns and Natural England GCN Pond Survey Data 2017-2019).

In addition, free and publicly accessible Ordnance Survey maps and aerial photographs were searched for waterbodies on, or within, 500 m of the Site boundary. This information has been used to assess the Site for its potential to support GCN the results of which are found in Section 4.3.

3.3 Preliminary Ecological Appraisal Survey

A Preliminary Ecological Appraisal (PEA) of the Site was undertaken in January 2021 by a Delta-Simons Ltd ecologist. Since access was not permitted to the surrounding land, it was visually assessed from the Site boundary. The Site was resurveyed in September 2022 during the reptile and bat surveys and again during the tree assessments in 2023, with no significant changes to the Site composition noted.

The following was undertaken during the survey:

- Habitats were classified and mapped using the standard JNCC Phase 1 habitat classification and methodology (JNCC, 2010). Dominant plant species were recorded in each different habitat. The plant species nomenclature followed that of Stace (2010);
- Habitats on-Site were surveyed for the presence of, or field signs to indicate the presence of protected or notable birds, amphibians, reptiles, mammals and widespread invasive plants. This included an external visual assessment of any trees/buildings on the Site for potential bat roost features and any evidence of bat activity, and an assessment of the Site's suitability to support commuting and foraging bats (Appendix B), in line with Collins (2016); and
- If Habitats of Principal Importance (HPIs) under the NERC Act 2006 were found to be present these were recorded. Further, an assessment of any hedgerows at the Site, which will be adversely affected by the proposed development, was undertaken using the hedgerow criteria outlined in the Hedgerow

Regulations 1997. The purpose of the assessment was to ascertain whether the hedgerows are classified as 'nationally important' and, therefore, protected under the Hedgerow Regulations 1997. The assessment involves a scoring system which relies on particular features, number of woody and floral species present within the hedgerow habitat, and the age of the hedgerow.

3.4 Bat Survey

Following the PEA, bat activity surveys and a roost emergence survey were carried out. Species recorded on or near the Site, and that might reasonably occur on Site, have been classified in terms of their relative light tolerance and rarity in accordance with the table presented in Appendix B.

3.4.1 Building Roost Presence/Likely Absence and Characterisation Surveys

Dusk Emergence Survey of Building 1

The dusk emergence survey of Building 1 was carried out on 13th September 2022, to determine bat activity associated with the building. It is acknowledged that this is outside of the peak survey window as outlined in line with the Bat Mitigation Guidelines (2004), Collins (2016), however, low levels of bat activity and professional judgement have been applied and it is concluded that it was not a significant constraint. The survey was carried out by Delta-Simons Ltd Consultant Ecologist Danni Phillips, who is experienced in carrying out roost emergence surveys.

The survey commenced approximately fifteen minutes prior to sunset and ceased approximately one and a half hours following sunset. The surveyors were equipped with Wildlife Acoustics Echo Meter Touch 2 Pro bat detectors. Recordings were made of any bats seen and/or heard and the species, the timing, activity, location, and direction of flight.

Any bat calls that could not be identified in the field at the time of the survey were subject to analysis using the BatExplorer software. Table 1 provides details of the survey.

Table 1 - Timings and Weather Conditions During the Building Survey

Structure	Date	Timing	Weather
Building 1	13/09/2022	19:15 - 21:00 (Sunset 19:32)	17 °C, 1/8 cloud cover, F1 wind

With reference to the Bat Mitigation Guidelines (2004), Collins (2016) and professional judgement, the weather conditions during the dusk/dawn surveys were considered suitable for bat activity.

3.4.2 Tree Roost Presence/Likely Absence and Characterisation Surveys

Further assessment of the trees identified as offering bat roost potential, was undertaken between May and August 2023, in line with the Bat Mitigation Guidelines (2004), Collins (2016) and professional judgement, to determine bat activity associated with the trees. Due to the time elapsed since the initial Site assessment in January 2021, an updated ground level assessment was undertaken of the trees on-Site, prior to aerial assessments of those trees re-assessed as having suitable features. Trees not able to be aerially assessed safely were subject to emergence surveys. The survey timings are provided in Table 1a, below.

Table 1a - Timings and Weather Conditions During the Tree Surveys

Survey	Date	Weather
Survey 1 (Ground based assessment and 1 st aerial climb)	24/05/2023	16 °C, 4/8 cloud cover, F1 wind
Survey 2 (second aerial climb and first nocturnal)	21/06/2023	26 °C, 1/8 cloud cover, F1 wind

Survey 3 (third aerial and second nocturnal)	12/07/2023	18 °C, 2/8 cloud cover, F2 wind
Survey 4 (third nocturnal)	02/08/2023	18 °C, 2/8 cloud cover, F2 wind
Survey 5 (final nocturnal survey)	16/08/2023	21 °C, 1/8 cloud cover, F1 wind

3.4.3 Transect Surveys

Two dusk transect surveys were carried out to assess bat activity associated with the different habitats at the Site. The surveys commenced approximately fifteen minutes prior to sunset and ceased two hours following sunset. The surveys were undertaken by Delta-Simons Ltd Consultant Ecologists Hannah Green and Craig Dickson, both of whom have experience of this survey technique.

Surveyors walked the predetermined routes shown in Figure 3. The bat transects were walked at a steady pace with each transect route including eight spot counts, where the surveyors remained stationary for three minutes. The location of each stop was chosen to incorporate different areas of the Site and different habitat types. The surveyors were equipped with Wildlife Acoustics Echo Meter Touch 2 Pro bat detectors. Records were made of any bats seen and/or heard and the species, the time, location and direction of flight. Table 2 below details timings and weather conditions at the time of surveys.

Table 2 - Timings and Weather Conditions of the Transect Surveys

Date	Timing	Weather
10/08/2022	20:45 – 23:33 (Sunset 20:45)	25 °C, dry, 1/8, F0
13/09/2022	19:30 – 21:00 (Sunset 19:32)	17 °C, dry, 1/8, F1

With reference to the Bat Mitigation Guidelines (2004), Collins (2016) and professional judgement the weather conditions during the transect surveys were considered suitable for bat activity.

Table 2a - Details of Surveyors

Name and Experience of Surveyor	Preliminary Habitat Assessment/ BRP	Presence/Absence Surveys - Buildings	Activity Surveys	Tree Surveys 2023
Craig Dickson, Senior Ecologist 5 years' survey experience	✓	✓	✓	
Hannah Green, Consultant Ecologist, 2 years' survey experience			✓	
Danni Phillips, Consultant Ecologist, 2 years' survey experience		✓		

Joseph Valentine, Consultant Ecologist, 2 years' survey experience				✓
Oliver Amy, Pioneer Ecology - Level 2 Survey Licence CL18 2015-13069- CLS-CLS, 12 Years' survey experience				✓
Lewis Andrew, Pioneer Ecology, Level 2 2022- 10401-CL18-BAT 4 Years' survey experience				✓

3.5 Reptile Survey

Survey methodologies followed recommendations in the Herpetofauna Workers' Manual (Gent and Gibson (JNCC), 2003) and comprised the placement of, and seven checks of, artificial refugia within areas of suitable reptile habitat across the Site.

A total of 120 artificial refugia were placed along the boundaries of any areas of scrub and grassland on Site in order to ensure a minimum density of 10 refugia per hectare as recommended by Froglife (1999). These comprised a mixture of corrugated bitumen roofing sheets, and roofing felt tiles, each measuring 0.5 m x 0.5 m. After allowing 14 days for the artificial refugia to settle into the sward they were all checked, above and below, on seven separate occasions for reptile presence. In addition to checking artificial refugia, a cold search of natural refugia and on-Site debris was also undertaken during each check. This involved any rocks or debris being overturned to check for reptiles. Any reptiles found were identified to species, and where possible, an approximate age category and sex was determined. The location of any reptiles found was recorded to understand the general usage of the Site by reptile species.

The survey was undertaken by a suitably qualified ecologist during appropriate weather conditions between 25th August and 14th September 2022. A viable survey was considered to be within a temperature range of between 10 - 20 °C (Edgar *et al.*, 2010) with no heavy rain or considerable overnight frost. Table 3 below details the survey timings and weather conditions.

Table 3 - Survey Timings and Weather Conditions

Reptile Check	Date	Start Time	Weather Conditions	Cloud Cover (okta scale)	Temperature (°C)	Wind (Beaufort scale)
No. 1	25/08/2022	9:00	Occasional light rain	1	16	1
No. 2	30/08/2022	9:15	Clear	2	17	3
No. 3	02/09/2022	9:00	Clear	3	17	3
No. 4	05/09/2022	9:20	Clear	2	18	2
No. 5	07/09/2022	16:00	Short showers	4	20	2
No. 6	09/09/2022	9:00	Clear	2	17	2

No. 7	13/09/2022	16:00	Clear	1	17	1
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Estimating reptile population size from refugia surveys can be difficult. However, an assessment of whether or not the population is likely to be significant within the local area was undertaken based on the numbers of reptiles of each species recorded over the survey visits, the density of refugia used, and the overall size of the Site, and the extent of any surrounding suitable habitat.

The reptile survey visits were undertaken by the following ecologists, all of whom have previous reptile survey experience:

- Craig Dickson, Senior Ecologist, 5 years' survey experience;
- Hannah Green, Consultant Ecologist, 2 years' survey experience;
- Danni Phillips, Consultant Ecologist, 2 years' survey experience;
- Joseph Valentine, Graduate Ecologist, 1 year survey experience; and
- Kieran Ryan, Graduate Ecologist.

3.6 Survey Limitations

The baseline conditions described in this report were accurate at the time at which the survey was undertaken. Should at least two years pass by, and/or conditions on Site/Site usage change prior to the commencement of works, an update survey should be undertaken.

3.6.1 PEA Survey

At the time of the survey, Delta-Simons Ltd was not able to access the interior of Building 2, an electrical substation, and therefore any observations and results relating to this building have been made from the exterior.

The survey was undertaken during the sub-optimal time of year for identifying plant species on the Site. However, at this Site the majority of the ground was either bare ground with emergent scrub or grassland and therefore potential misidentification of habitats is not considered to be a significant constraint.

There were no limitations to the survey in terms of access, timing, and weather conditions.

3.6.2 Bat Survey

It was noted during the bat surveys that, due to the proximity of the Site to Manchester Airport and the Site being on the flight path of landing planes, the Site was subject to very high levels of disturbance from landing planes. Background noise from landing planes had the potential to result in the misidentification of bat calls, whilst light spill would illuminate a lot of the Site as the planes flew overhead.

The building survey was undertaken in September, outside of the peak bat season, however, with the aforementioned disturbance, as well as the very low levels of bat activity recorded on the survey, the transect and the tree surveys in 2023, this is not considered to be a significant constraint.

During the tree assessments in 2023, multiple trees were felled before they could be fully assessed for their potential to support roosting bats, however, it is understood this was undertaken on health and safety grounds as the trees had partially fallen on an electrical substation in the northern extent of the Site.

There were no further limitations to the survey in terms of access, timing, and weather conditions.

3.6.3 Reptile Survey

There were no limitations to the survey regarding access and timing. During check number 1, there were occasional light rain showers throughout the survey, however this is not considered to have affected the

likelihood of reptiles being found on Site. During check number 5 it began to rain heavily, but for only a short time, so the survey could still be completed within current guidelines.

3.7 Ecological Impact Assessment Methodology

An ecological impact assessment has been carried out following the principles set out within the Guidelines for Ecological Impact Assessment (EclA) in the UK and Ireland; Terrestrial, Freshwater, Coastal and Marine updated by the Chartered Institute of Ecology and Environmental Management (CIEEM) in 2019, the full details of which are provided in Appendix C.

4.0 Baseline Conditions

The following section describes the baseline ecological conditions at the Site, outlining the results of the desk study and field survey findings. Current management is anticipated to remain unchanged up until development and, therefore, baseline conditions at the time of writing this Report are anticipated to reflect those at the commencement of the Proposed Development. The conservation importance of the features identified have been evaluated using the geographical scale outlined in Appendix C, furthermore, the Site was re-assessed in 2022 and 2023 during protected species surveys, with no significant changes to Site composition noted.

The pertinent information from the data search is set out in section 5.1 below for designated sites, whilst data search records for the species are discussed in the relevant species sections. Full results of the data searches are available to the Client on request.

4.1 Desk Study

4.1.1 Designated Sites

The results of the MAGIC data search and the GMEU desk search indicate:

- No internationally designated statutory sites within 6 km of the Site centre;
- No nationally designated statutory sites within 2 km of the Site centre;
- No locally designated statutory sites within 2 km of the Site centre; and
- Three non-statutory designated sites within 2 km of the Site centre, all of which were Sites of Biological Importance (SBI).

Table 4, below, sets out the non-statutory designated sites identified and considered relevant to the Site. None of the Sites are listed in the Ancient Woodland Inventory

Table 4 - Non-Statutory Designated Sites within 2 km of the Site

Site Name	Designation	Distance and Direction from Site Boundary	Designation Criteria Summary
Big Wood	SBI	225 m west	No citation provided.
Heald Green Marsh	SBI	930 m north	No citation provided.
Park Wood	SBI	1 km north-west	No citation provided.

4.1.2 SSSI Impact Risk Zones

The Site falls within several SSSI Impact Risk Zones (IRZ) that can require the Local Planning Authority (LPA) to consult with Natural England and assess planning applications for likely impacts on SSSIs/SACs/SPAs and Ramsar sites.

As the criteria listed are not relevant to the development proposals, there is no requirement for the LPA to consult Natural England and IRZs are not considered further within this report.

4.1.3 Priority Habitats

The MAGIC data search also provided information regarding Priority/HPI habitats on and around the Site. The MAGIC Maps do not suggest that there are any Priority/HPI habitats on Site and the only Priority/HPI habitats present within 50 m of the Site are shown to be present 20 m to the east of the Site, across Styal Road. Listed habitats include Deciduous woodland.

4.2 Habitats

Figure 2 shows the extent of habitat types identified during the survey and boundary features. Descriptions of the habitat types and dominant plant species found at the Site are provided below. Habitat descriptions are by broad habitat type, as listed in the Phase 1 Habitat Survey Manual (JNCC, 2010).

Details of trees, including species and reference numbers have been taken from the Delta-Simons Ltd Tree Survey Report (20-0739.07). Photographs of the Site survey are located in Appendix D.

Habitats recorded on Site are:

Semi-natural Broadleaved Woodland

There were several small areas of woodland located across the Site, where scattered trees had begun to develop a full understorey distinct from the grassland (G3, G8, T10, G11, G12, G13, T14, G16, G17, T18, G16, T18, T19, T20, T21, G22) (Photographs 1 and 2). Tree species included ash *Fraxinus excelsior*, oak *Quercus robur*, sycamore *Acer pseudoplatanus*, and willows *Salix* sp. There were several dead elm trees *Ulmus procera* noted within the woodland groups. The understoreies were dominated by bramble *Rubus fruticosus* agg., and common ivy *Hedera helix*, with areas of bare ground.

This habitat is widespread within the local area and is considered to be of Local value for nature conservation.

Dense Scrub

The majority of the south-western extent of the Site was defined by dense scrub on top of demolition rubble from the former Site (Photograph 3). The scrub was self-set, consisting of predominantly silver birch *Betula pendula*, with young ash, oak and sycamore also recorded. Bramble was localised in parts of the scrub.

This habitat is widespread within the local area and is considered to be of Local value for nature conservation.

Scattered Scrub

There was extensive scattered scrub within the grassland in the eastern extent of the Site (Photograph 4), in addition to the spoil mounds from demolition rubble in the western extent of the Site. Species included oak, ash, silver birch, sycamore, and hawthorn *Crataegus monogyna*, with no one dominant species.

This habitat is widespread within the local area and is considered to be of Local value for nature conservation.

Scattered Trees

Scattered trees were present across the entire Site, in varying ages and conditions. The most defined trees were lines of mature Lombardy poplar *Populus nigra 'Italica'* along the northern boundary of the Site (Photograph 5), which provided structural screening between the Site and Simonsway to the north (G1, G5, and G15). There were groups of beech *Fagus sylvatica*, and elm, resulting from outgrown hedgerows in the northern extent of the Site (G6, G7), adjacent to hardstanding, in addition to a group of young goat willow *Salix caprea* to the west (G2). A small grouping (G9) of birch, whitebeam *Sorbus aria*, willow, and oak was recorded to the east of G7.

Further groups of trees were associated with the southern boundary of the Site (Photograph 6), which included a row of willows *Salix* sp., set within dense bramble scrub (G24), in addition to groups of young oak, birch and ash trees associated with a bank adjacent to the demolition rubble in the south-western corner of the Site (G25, G26 and G27).

This habitat is widespread within the local area and is considered to be of Local value for nature conservation.

Poor Semi-Improved Grassland

The majority of the Site was defined by rank grassland (Photograph 7) which was tussocky with a sward height between 50 cm and 1 m in parts, with shorter sections on tracked paths between 10 - 20 cm. Species

including perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, red fescue *Festuca rubra* and soft brome *Bromus hordeaceus* were recorded. Ruderal species included broadleaved dock *Rumex obtusifolius* and abundant cow parsley *Anthriscus sylvestris*.

This habitat is widespread within the local area and is considered to be of Local value for nature conservation.

Buildings

There were two buildings on-Site, associated with the former Site prior to demolition of the majority of the buildings. Building 1 was a disused circular guard hut (Photograph 8), which was brick and timber built with extensive fire damage. The roof was flat, and the lining had been severely damaged by the fire. Building 2 was a brick-built electrical substation with a flat roof (Photograph 9), within a fenced compound. During survey work in 2022, it was noted that a tree from G3 had fallen on the substation and caused significant damage to the structure (Photograph 10).

Bare Ground

A large section of the western extent of the Site was defined by demolition rubble, half of which formed a large mound, whilst the remaining area was the levelled footprint of a demolished structure, both of which had extensive scattered scrub developing (Photograph 11). The areas of demolition rubble had poor drainage and water pooled following periods of heavy rainfall (TN1, Photograph 12).

Spoil

A small spoil mound was in place at the front gate on the northern boundary of the Site, acting as a security feature in tandem with concrete blocks to prevent access onto the Site (TN2, Photograph 13).

There were large log piles, presumably from felled trees, in the southern extent of the Site (TN3, photograph 14).

Hardstanding

The original carpark and access routes were still in situ at the Site, consisting of tarmac surfaces bounded by short brick retaining walls. Scattered scrub was beginning to encroach onto areas of hardstanding (Photograph 15). There was a fenced overflow carpark in the western extent of the Site (Photograph 16).

4.3 Species

4.3.1 Amphibians

There were 31 records of amphibians of conservation concern returned by the records centre within 2 km of the Site centre and within the last 10 years. The majority of the records were associated with extensive survey work as part of the A6 Manchester Airport Relief Road (A6MARR) Scheme, with the closest record 695 m south of the Site boundary in 2014. There were historic records of GCN from Big Wood SBI, 225 m west of the Site, dating from 1988.

Granted European Protected Species Licences (EPSLs) within 2 km of the Site included the licence for the A6MARR (EPSM2010-2659) which was centred 1.9 km south-west of the Site boundary but covered an area which was 650 m south of the Site at its closest.

A review of aerial photographs and OS maps revealed that there are four ponds within 500 m of the Site with potential to support breeding amphibians. There was pooling water (TN1) on the areas of demolition rubble noted during the walkover, which was dry during the further surveys, and contained no egg laying vegetation, such that it was not considered to be a permanent waterbody which could support GCN. The closest waterbody was 110 m north of the Site boundary, with the remaining three ponds located within Big Wood SBI, 225 m west of the Site boundary. None of the ponds were publicly accessible and therefore could not be assessed for their suitability to support amphibians. Furthermore, none of the ponds were functionally

connected to the Site and were separated either by Simonsway to the north or Atlas Business Park to the west, in addition to Shadow Moss Road and the Metrolink line to Manchester Airport, all of which are considered to be major barriers to amphibian dispersal between these ponds and the Site.

As discussed above, there were no suitable aquatic habitats on-Site for GCN. The terrestrial habitats on Site including the woodland, scrub and grassland were suitable for GCN, however, the Site was surrounded by roads with kerbs which would act as dispersal barriers for the species. The Site also lacks connectivity to any suitable aquatic habitat for GCN, such that it is considered unlikely that GCN would have colonised the area.

GCN are not considered to be a constraint at this Site and are therefore not discussed further in this report.

4.3.2 Reptiles

There were no records of reptiles within 2 km of the Site centre within the last 10 years. However, some of the structural mosaic required to support species of reptiles was recorded on-Site, with long grassland, scrub and areas of hardstanding and rubble for basking.

Refugia Survey

Following this assessment of habitat suitability and variation during a walkover of the Site, the artificial refugia were placed around the edges of the areas of suitable habitats on Site, or in lines running through the larger habitat areas. The refugia have been grouped according to location within the Site. Their locations are shown in Figure 4 and habitat details are given in Table 4 below.

Table 5: Number and Associated Micro-Habitats Supporting Artificial Refugia

Group	Micro-Habitat	Number of Refugia
A	Woodland, bare ground, scattered scrub	20
B	Spoil, scattered scrub, grassland	20
C	Bare ground, scattered scrub, dense scrub	20
D	Grassland, dense scrub	30
E	Woodland, grassland, dense scrub	30

Results and Conclusions

Despite the presence of suitable basking, foraging and hibernating habitat on Site, no reptiles were found during the refugia survey. However, it must be noted that although suitable habitat was present within the Site boundary, the Site is lacking in habitat connectivity to the wider area due to the surrounding commercial and residential buildings, which reduces the likelihood that any reptiles in the wider area will colonise the Site. Therefore, it is considered unlikely that the Site supports reptiles or that reptiles would colonise the Site in the future. Reptiles are therefore not considered further in this report.

4.3.3 Birds

There were four species of notable birds of relevance to the Site returned by the records centre within 2 km of the Site centre and within the last 10 years. None of these are species listed on Schedule 1 of the WCA (1981, as amended). The following species listed on the Red List of BoCC (Stanbury *et al.*, 2021) are of potential relevance: herring gull *Larus argentatus*, house sparrow *Passer domesticus*, starling *Sturnus vulgaris* and willow tit *Parus montanus*.

Habitats featured on the Site suitable for nesting birds, include the woodland, scattered trees, dense scrub, and grassland. Old nests were observed within mature trees on Site indicating the Site is used by nesting birds.

Bird species recorded at the time of the survey included: feral pigeon *Columba livia domestica*, robin *Erithacus rubecula*, magpie *Pica pica*, blue tit *Cyanistes caeruleus*, blackbird *Turdus merula*, and carrion crow *Corvus corone*. Also recorded were herring gull and house sparrow, listed on the Red List of BoCC. It should be noted that this is not a comprehensive inventory of the bird species which may be present at the Site. It was noted during the surveys that the proximity of the Site to Manchester Airport could deter several species of birds from nesting on-Site, due to noise and light from landing planes.

The nesting bird assemblage at the Site is considered to be of Local value.

4.3.4 Bats

The data indicated that at least four species of bats have been recorded within 2 km of the Site centre in the past 10 years. Species identified included common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus* (BLE), and noctule bat *Nyctalus noctula*, in addition to one record of an unidentified bat species. Details of these records are provided below:

- Fourteen records of common pipistrelle, the closest and most recent of which was 600 m north-east the Site boundary in 2017;
- Seven records of BLE, the closest of which was 1.35 km north-east of the Site boundary in 2017, whilst the most recent record came in 2018, 1.42 km east of the Site boundary;
- Two records of soprano pipistrelle, both of which were 610 m north-east of the Site boundary in 2015 and 2016;
- One record of noctule, which was also 610 m north-east of the Site boundary in 2016; and
- One record of unidentified bat species from 425 m north of the Site boundary in 2017.

Eight of the records were of roosts, of which six related to the same roost site at Cheadle Royal Hospital, details of which are provided in Table 6, below.

Table 6 - Roosts within 2 km of the Site

Species	Roost Type	Year	Distance and Direction from Site Boundary
BLE, Common pipistrelle	Hibernation roost	2017	1.36 km north-east, associated with Cheadle Royal Hospital (DC/068386)
BLE	Day roost	2014	1.8 km south
Common pipistrelle	Day roost	2017	1.45 km north

A review of the MAGIC website in September 2022 revealed two granted EPSLs within a 2 km radius of the centre of the Site. Available details of the licences are shown in Table 7, below.

Table 7 - Granted EPSLs Within a 2 km Radius of the Centre of the Site

Distance from the Site	EPSL Case Reference	Damage to Breeding Site	Damage to Resting Place	Destruction of Breeding Site	Destruction of Resting Place
1.3 km south	2016-26857-EPS-MIT	N	N	N	Y
1.9 km west	2015-9463-EPS-MIT	N	N	N	Y

Buildings - Preliminary Roost Assessment

A preliminary habitat assessment undertaken in January 2021, identified buildings to offer roosting potential for bats. Figure 5 shows the locations of the BRP features.

Two building were present on Site. Descriptions of the buildings and associated BRP features are provided in Table 8 below.

Table 8 - Bat Roost Potential Assessment - Buildings

Building Reference	Building Description	BRP Feature	Evidence of Bats	BRP Assessment
B1	A disused circular guard hut which was brick and timber in design, with a flat roof. The building was fire damaged, and the windows/door were missing. Due to fire damage and light spill through missing windows/door, hibernation was considered unlikely.	Gaps into roof timbers on southern aspect with least fire damage (Photograph 17)	Full inspection not possible	Low
B2	A brick built electrical substation on the northern boundary of the Site. Internal inspection not possible. No features recorded during initial walkover in 2021, however, during emergence surveys of B1 in 2022, a section of an adjacent tree had fallen on the building and caused significant damage, which could present possible roosting features.	Damage from fallen tree in 2022 (Photograph 10)	Full inspection not possible Repair works undertaken in 2023	Negligible

Buildings - Bat Emergence/Re-entry Surveys

The results of the roost presence/absence survey of the building assessed as having low BRP are summarised below and illustrated in Figure 6. The raw data is included in Appendix E.

Building 1 - Dusk Emergence Survey 13th September 2022

The first bat recorded was a common pipistrelle at 19:45, 13 minutes after sunset, which flew over Building 1 from the north to the south. Activity levels were low but consistent, with foraging and commuting common pipistrelles recorded, with a peak count of two bats. A BLE was recorded commuting to the east between 20:29 and 20:32, with two passes recorded.

Trees - Preliminary Roost Assessment

Delta Simons Ltd undertook an initial ground-level BRP assessment of the Site in 2021, and identified several mature trees which offered low BRP, in addition to two High BRP trees which were dead/dying. However, due to the time elapsed since the initial walkover, an updated assessment of the trees was required in 2023.

The updated assessment was undertaken by Pioneer Environment Group Ltd. In May 2023, and consisted of a combined ground level assessment and aerial tree assessment. The results of the BRP assessment are shown in Table 9 and on Figure 5.

Trees - Roost Emergence/Re-entry Surveys

Following on from the aerial BRP assessment, further survey works were undertaken, and no bats were recorded roosting within or emerging from any of the trees surveyed, no evidence of historic bat roosting

was noted within any of the features which were assessed, and bat activity levels during the surveys were low, with occasional common and soprano pipistrelle passes recorded, in keeping with the results of the bat activity and building emergence surveys results. The results of the aerial assessments and emergence surveys are shown in Table 9.

Table 9 - Tree Bat Roost Potential Assessment and Results of Bat Surveys

DS Reference	Species	Notes	Ground Level BRP Assessment	Aerial BRP Assessment (Survey 1)	Survey 2	Survey 3	Survey 4	Survey 5	Further Action
TG6	<i>Fraxinus excelsior</i>	Ash adjacent to building	Negligible	-	-	-	-	-	None - Completed
TG6	<i>Fraxinus excelsior</i>	Large ash adjacent to building	High	High	FELLED	-	-	-	None - Completed
TG3	<i>Salix babylonica</i>	Large willow next to building	Moderate	Moderate - No evidence	Moderate - No evidence	-	-	-	None - Completed
TG3	Dead Unknown sp.	Dead unknown species - UNSAFE TO CLIMB	Moderate	UNSAFE TO CLIMB	FELLED	-	-	-	None - Completed
TG3	<i>Ulmus glabra</i>	Young elm in good condition	Negligible	-	-	-	-	-	None - Completed
TG6	<i>Fraxinus excelsior</i>	Ash by entrance road	Moderate	Low - No evidence	-	-	-	-	None - Completed
TG7	<i>Fraxinus excelsior</i>	Ash covered in ivy by entrance road	Moderate	Negligible	-	-	-	-	None - Completed
T13	<i>Quercus robur</i>	Mature oak. Generally, in good health.	Moderate	Moderate	Moderate - No evidence	-	-	-	None - Completed
T14	<i>Quercus robur</i>	Large Oak with various features	Moderate	High	High - No evidence	High - No evidence	-	-	None - Completed
T18	<i>Quercus robur</i>	Partially dead Oak	Moderate	Moderate	Couldn't be fully inspected	-	Dusk Activity - no evidence	Dusk Activity - no evidence	None - Completed

DS Reference	Species	Notes	Ground Level BRP Assessment	Aerial BRP Assessment (Survey 1)	Survey 2	Survey 3	Survey 4	Survey 5	Further Action
T19	Dead Unknown sp.	Dead tree unsafe to climb - UNSAFE TO CLIMB	High	UNSAFE TO CLIMB	Dusk Activity - no evidence	Dusk Activity - no evidence	Dusk Activity - no evidence	-	None - Completed
T20	<i>Quercus robur</i>	Large Oak semi mature	Moderate	Negligible	-	-	-	-	None - Completed
TG22	<i>Salix fragilis</i>	Large spread willow with no clear leader and large hazard beam to north	Moderate	Moderate	Split has opened - feature no longer suitable	-	-	-	None - Completed
T21	<i>Quercus robur</i>	Large Oak on edge of site in excellent condition	Negligible	-	-	-	-	-	None - Completed
TG24	<i>Unknown sp.</i>	Red Oak.	Negligible	-	-	-	-	-	None - Completed
TG24	<i>Salix fragilis</i>	Young crack willow on edge of site	Negligible	-	-	-	-	-	None - Completed
TG24	<i>Salix fragilis</i>	Large willow. With good spread. Thick scrub at base.	Negligible	-	-	-	-	-	None - Completed
TG24	<i>Salix fragilis</i>	Multi stemmed large willow. No features noted	Negligible	-	-	-	-	-	None - Completed

Whilst no evidence of bats was recorded during the surveys, the features remain in-situ and bats could come to colonise them over time, as such the trees will require pre-felling surveys undertaken on the day, they are due to be removed, alternatively, a bat licenced tree climber could undertake aerial assessments of the trees and exclude features prior to felling works.

The geographical value of the site for roosting bats is considered to be of local value.

Preliminary Commuting and Foraging Habitat Assessment

The Site offers suitable foraging and commuting habitat for bats. The row of mature Lombardy poplars along the northern boundary of the Site and the woodland edge both offer good connectivity across the Site, however, connectivity to off-Site habitats is limited and both Simonsway to the north and Styal Road to the east have street lighting. The Site was assessed as offering low suitability for foraging and commuting bats.

Bat Activity Surveys

The results of the transect surveys are summarised in Table 10 below and illustrated in Figures 7 and 8. The raw data is included in Appendix F.

Table 10 - Summary of the Transect Survey Results

Month	Transect 1
10 th August 2022	Recorded low levels of common pipistrelle only across the Site, with a single noctule pass. The first bat recorded was a common pipistrelle at 21:11 at listening stop 4. The majority of the activity was in the northern extent of the Site, around the buildings.
13 th September 2022	Recorded low levels of common pipistrelle only across the Site, with higher abundance in areas with tree cover. The first pass was recorded at 19:49 with bats foraging between the two buildings at the Site entrance. The final pass was recorded at 20:24 with five bats foraging along a tree line close to listening stop 2.

Remote detectors were not deployed at the Site due to the high levels of disturbance by passing planes, and the risk of disruption from the general public.

The Site is considered to be of local value for commuting and foraging bats.

4.3.5 Badgers

There were two records of badger found within 2 km of the Site centre within the last 10 years, the locations of which have not been included in this report due to welfare issues.

No evidence of badger was identified during the survey, and whilst the habitats on Site were suitable for badgers, the Site was located in an urban area and surrounded by roads, with no connectivity to other suitable badger habitat, such that it is anticipated that badger would be unlikely to venture onto the Site. Despite the lack of connectivity, there remains a possibility that badgers may venture onto Site.

The geographical value of the Site for badgers is considered to be of local value.

4.3.6 Other Protected or Otherwise Notable Species

There were two records of hedgehog *Erinaceus europaeus* within 2 km of the Site centre within the last 10 years. The closest record is 1.08 km west of the Site in 2016, and both the records were from residential areas. The woodland, scrub and grassland habitats were suitable for hedgehogs, such that they may inhabit the Site, or venture onto the Site to forage.

The Site is considered to be of local value to hedgehog.

4.3.7 Invasive Species

No records of invasive species were found within 2 km of the Site centre within the last 10 years, and no evidence of invasive species was recorded on-Site during the surveys.

4.4 Summary of Important Ecological Features and Geographic Value

The species scoped out as important ecological features above due to their likely absence from Site cannot experience effects from the Proposed Development and are not therefore considered below.

The 'important ecological features' identified above with the potential to experience effects as a result of the Proposed Development are listed in Table 11 below, along with their geographic importance. These features will be the subject of the ecological impact assessment in section 5.0.

Table 11 - Identified Important Ecological Features

Important Ecological Feature	Geographic Value
Designated sites	Local
Habitats	Local
Bats	Local
Nesting birds	Local
Badgers and hedgehogs	Local

5.0 Assessment of Effects

The evaluation in this section is based on the baseline information presented above, review of design proposals, consultation with the design team, knowledge of likely construction practices to be employed, and reasonable assumptions regarding operation.

For purposes of the assessment, it is assumed there has been no change in the condition of the Site since the Site survey (unless otherwise stated).

5.1 Important Ecological Features for Which No Effect is Anticipated

The proposed development will be for warehousing and offices, which is not anticipated to have any impact on the designated sites identified, as the Site is set within an urban environment with proposed greenspace on-Site for workers and public to use it is unlikely that the development will result in increased footfall to the SBIs in proximity to the Site.

Furthermore, it is understood that the development will not impact on the majority of the boundary trees identified on-Site, with several mature oaks retained, as shown in Drawing 1.

5.2 Important Ecological Features and Potential Effects

5.2.1 Habitats

Potential Impacts and Effects During Construction and Operation

The habitats present on Site are widespread on both a local and national scale, with none of the habitats being considered rare. However, the woodland on-Site qualifies as a Manchester BAP Priority Habitat, and falls within the W10 Oak Bracken Bramble Woodland classification, providing a wildlife corridor for a range of species of mammals, birds, and invertebrates across the landscape. Despite the wider area being heavily urbanised, there is a good representation of woodland and scattered trees, however, the quality and maturity of some of the trees on-Site is notable. The loss of woodland, scrub and grassland will result in -38.3% in Biodiversity with a 100% gain in linear units due to the lack of linear features pre-development (see accompanying BNG report for full details).

The Development Proposals will result in the loss of most of the on-Site habitat during Site clearance, though it is understood that the majority of the boundary vegetation will be retained. A general loss of habitats from the Site could contribute to the fragmentation of habitats across the landscape, and a loss of foraging and commuting habitat for a range of species. There is the potential for a cumulative loss of biodiversity when taken into consideration with other developments in the area.

Further, if habitats retained and/or planted during construction are not managed appropriately during operation, then there is the potential for additional biodiversity loss from the Site.

Despite these habitats being widespread in the local area, the loss of overall biodiversity on-Site is considered to have a moderate adverse effect that is significant.

Avoidance and Mitigation

During Construction

As the woodland and scattered trees were found to be the most important habitat on Site due to them providing foraging habitat for and links for a range of species to the wider landscape, it is understood that a large proportion of the boundary vegetation is to be retained on Site and protected during the construction phase. A CEMP should be implemented and will ensure retained habitats are properly protected during the construction phase.

With the CEMP in place, the construction phase will have a minor adverse effect which is non-significant.

During Operation

A LEMP will be in place in order to ensure retained habitats are managed for the benefit of biodiversity for at least the next 30 years.

With mitigation and management, there are not anticipated to be any adverse effects, and the development is considered to be non-significant.

Assessment of Residual Effects

Following the implementation of avoidance, mitigation and compensation on Site, there will be a loss of scrub, grassland, woodland, and scattered trees from the Site. It is understood that boundary vegetation will be retained where possible, but the development of the Site will have a significant loss in biodiversity.

A Biodiversity Net Gain (BNG) assessment (Delta Simons Ltd Report Ref – 20-0739, June 2023) has been undertaken based on the landscaping plans (Drawing 1), however, the assessment concluded that the development of the Site will result in a 38.33% (-16.45 units) loss of biodiversity on-Site. There is potential to enhance the retained habitats, where feasible, however, landscaping at the Site is limited by the Sites proximity to Manchester Airport, and a Bird Hazard Management Plan (BHMP) is in place to deter nesting birds from the Site.

Provided a suitable mechanism is agreed and implemented to ensure an off-Site biodiversity net gain, the potential residual effects during construction and operation are considered to be negligible and of neutral significance.

Compensation

In order to ensure a biodiversity net gain for the Site the loss of the habitats on Site will be compensated for through the provision of new habitats on Site. The plants included in the landscape strategy have been carefully chosen in line with best practice guidance to maximise the Site's biodiversity value post-development.

5.2.2 Birds

Potential Impacts and Effects During Construction and Operation

During Construction

The construction phase will result in the loss of woodland, trees, and scrub habitat. There is, therefore, potential for direct adverse effects on nesting birds that are permanent in nature as a result of such clearance. Though it should be noted that a majority of boundary vegetation is proposed to be retained.

In addition, construction works being carried out within proximity to nesting birds may affect them indirectly, depending on the works being carried out, and the species of bird affected. Noise and vibration disturbance effects may result in birds being repeatedly flushed off nests, causing disruption to feeding activity, or even abandonment of nests. This is considered to be a temporary impact.

Further to the potential direct effects on birds whilst they are actively nesting, the removal of suitable vegetation will result in the direct loss of available bird nesting habitat, as well as a loss of foraging opportunities.

During Operation

During operation, if habitats retained and/or planted during construction are not managed appropriately during operation, then there is the potential for additional biodiversity loss from the Site.

The loss of available bird nesting and foraging habitat on Site is unlikely to be significant in isolation. However, there is the potential for a cumulative loss of biodiversity when taken into consideration with other developments in the area and this could result in a significant negative effect on local biodiversity.

Without mitigation, this is considered likely to have a minor adverse effect that is non-significant.

Avoidance and Mitigation

During Construction

Where practicable, vegetation clearance at the Site will be undertaken outside of the main nesting bird season (i.e. clearance carried out between September and February inclusive). Conflict with the development can be avoided by managing the land to discourage nesting birds up to the works commencing.

If these works cannot be restricted to within this period, an Ecological Watching Brief will be maintained during the main bird breeding season to ensure that no nesting birds are adversely affected. This will entail checking all suitable habitat for nesting birds due to be removed, and a buffer of at least 10 m beyond that area, by a suitably qualified ecologist prior to the commencement of works. If, during the Ecological Watching Brief, birds are found to be within the area due to be cleared or the buffer zone, measures to prevent any disturbance to breeding birds, including the cessation of tree and vegetation clearance, or construction works in areas close to breeding sites until the birds have completed breeding, will be put in place until the chicks have fledged.

Providing the above mitigation is followed there will be no significant effects on nesting birds.

During Operation

A LEMP will be in place in order to ensure retained habitats are managed to maximise foraging opportunities for birds, and to prevent destruction or damage to nests in-use, for at least the next 30 years. Furthermore, a Bird Hazard Management Plan (BHMP) has been prepared to minimise impacts from nesting birds on the nearby Manchester Airport, by deterring larger species such as gulls, corvids, and pigeons from roosting on the buildings.

Provided the LEMP and BHMP are followed, and habitats managed appropriately, there will be no significant effects on nesting birds.

Assessment of Residual Effects

Despite the additional habitat provided on Site, there will be a net loss of nesting and foraging habitat from the Site.

Provided a suitable mechanism is agreed and implemented to ensure an off-Site biodiversity net gain, the potential residual effects during construction and operation are considered to be negligible and of neutral significance.

Compensation

To reduce the net loss of bird breeding habitat on Site, additional tree, shrub, and hedgerow planting at the Site post development will provide opportunities for nesting and foraging birds. Furthermore, it is recommended that 12 bird boxes are installed for species known to occur within the local area that are of conservation concern. Furthermore, invertebrate boxes and log piles should be incorporated into the design to increase foraging opportunities for wildlife on-Site.

5.2.3 Bats

Potential Impacts and Effects During Construction and Operation

The Site provides low quality foraging and commuting habitat for local bat species via the grassland, woodland, scrub, and trees, with further opportunities within adjacent habitats, although this habitat is already somewhat fragmented from surrounding habitat.

Without mitigation in place there is potential to disturb foraging, commuting and roosting bats, which is anticipated to be a moderate adverse impact which is significant.

Avoidance and Mitigation

During Construction

It is understood that the majority of boundary vegetation is to be retained and protected during construction which will continue to provide suitable foraging and commuting habitat across the Site and into the wider landscape for bats. However, the loss of the scattered trees, grassland and scrub will significantly reduce foraging opportunities for bats on-Site. Furthermore, surveys will be required of all trees assessed as having BRP prior to any felling works, which could include emergence/return surveys, or alternatively a licensed bat ecologist and tree climber could assess the features prior to felling to confirm the likely absence of bat roosts. If a bat roost is found, then a European Protected Species Licence (EPSL) would be required to enable the legal removal of the roosts, however, this does not raise a significant constraint from an ecological appraisal.

The construction phase of works has the potential to result in temporary disturbance to bats through increased lighting, noise and vibration, both on foraging and commuting corridors. However, it is anticipated that during the main active bat season (April-October, inclusive), construction works will generally cease, or be winding down before dusk when bats emerge and will not begin before dawn when bats return to roosts. Therefore, generally additional artificial lighting will not be required, and there are not anticipated to be any negative effects upon bat foraging and commuting behaviour from noise across the Site since construction works will not coincide with the timing of bat activity.

In certain circumstances, for example, in late autumn or early spring when daylight hours are limited but weather conditions may be suitable for bats to be active, there may be a brief overlap between bat activity and on-Site construction works. During this period, lighting may be required to enable the construction works to progress, and this along with any associated noise, may temporarily alter bats foraging and commuting activity across an area of the Site. However, the combined effects of lighting and noise from construction works during these occasional circumstances would only be a temporary deterrent to foraging and commuting bats in a concentrated area, and not across the wider Site and this is not anticipated to have any adverse impact upon bats.

With appropriate mitigation in place, the impact on foraging, commuting and roosting bats is considered to have a neutral and, therefore, non-significant effect.

During Operation

In order to avoid any impacts to more light tolerant species of bat, a lighting strategy should be designed in consultation with an ecologist. Lux levels at the Site boundaries fall well below the levels required to cause disturbance to more light-tolerant bats species. The proposed development will include landscaping including green roofs which will provide foraging opportunities for bats. Furthermore, bat boxes should be attached to retained trees at the Site to provide roosting opportunities for bats.

With the above mitigation in place, the impact on foraging, commuting and roosting bats is considered to be negligible and of neutral significance.

Compensation

Despite no bats being recorded roosting within the building during the nocturnal surveys, or within the mature trees during the aerial assessments, with the required vegetation removal, several features suitable for roosting bats are likely to be lost to facilitate the proposed development. Whilst no bats were recorded emerging from trees during the activity surveys, the features remain intact and could be utilised by bats in the future. To compensate for the loss of valuable roosting features, it is recommended that six bat boxes be installed on trees to be retained around the Site. Furthermore, five invertebrate boxes and five log piles should be incorporated into the design to increase invertebrate foraging opportunities for bats on-Site.

Assessment of Residual Effects

Subsequent to the application of the avoidance and mitigation measures discussed above, the residual effects are considered likely to be negligible and of neutral significance.

5.2.4 Badgers and Hedgehog

Potential Impacts and Effects During Construction and Operation

Badgers and hedgehogs may make use of the woodland, scrub and grassland on Site and therefore have potential to be killed/injured during Site clearance works and be affected subsequent to Site clearance by a loss of foraging, commuting, and sheltering habitat.

Without mitigation in place, there is potential for badgers and hedgehogs to be injured/killed which is considered to be a moderate adverse impact which is significant.

Avoidance and Mitigation

During Construction

Clearance of any scrub, woodland, grassland, or trees will be undertaken with an awareness for the potential presence of hedgehog and any individuals found should be caught with gloved hands and moved to an alternative suitable habitat away from the proposed works.

During the construction phase of works, no open pits or trenches will be left uncovered or alternatively without a mammal escape ramp overnight. This measure could be secured through implementation of a CEMP.

With appropriate mitigation in place, the impact on badgers is considered to have a minor adverse impact which is non-significant.

During Operation

A LEMP will be in place in order to ensure retained habitats are managed to maximise foraging and sheltering opportunities for hedgehogs, for at least the next 30 years.

With appropriate mitigation in place, the impact on hedgehogs is considered to have a negligible effect of neutral significance.

Assessment of Residual Effects

Despite any additional habitat provided on Site, there will be a loss of valuable scrub, woodland, grassland and tree habitat from the Site.

Provided a suitable mechanism is agreed and implemented to ensure an off-Site biodiversity net gain, the potential residual effects on badgers and hedgehogs during construction and operation are considered to be negligible and of neutral significance.

Compensation

To reduce the net loss of hedgehog habitat on Site, additional tree, shrub, and hedgerow planting at the Site post development will provide opportunities for foraging and sheltering hedgehogs. Furthermore, it is recommended that the designs include hedgehog box provision for this species, and hedgehog highways (13 cm x 13 cm gaps in the base of close-board fencing) to enable hedgehogs to continue to move across the Site.

5.3 Cumulative Effects

The loss of habitats as a result of the proposed development, in particular the loss of mature and notable trees within the woodland and scattered across the Site is likely to result in a cumulative impact with further tree removal and habitat loss on other sites in the wider area. Whilst these losses could be mitigated for via an off-Site contribution or via a bespoke agreement with the LPA, no mechanism is currently in place.

If the loss in biodiversity could be mitigated for appropriately, then the Proposed Development will result in no significant residual effects on any of the identified important ecological features and will therefore be unlikely to contribute to a cumulative effect in combination with other nearby developments.

5.4 Enhancement

The revised National Planning Policy Framework (NPPF), sets out, amongst other points, how *“Planning policies and decisions should contribute to and enhance the natural and local environment by:*

Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure”.

Enhancement measures could include additional bird and bat boxes, as well as structures such as hedgehog boxes and insect hotels. The following are proposed:

- Twelve bird boxes attached to retained trees on Site. The boxes will be erected at least 3 m from ground level in a sheltered, shaded location, avoiding a southern orientation, facing vegetation.
- Six bat boxes. The boxes will be attached to retained trees on Site, in clusters which mimic natural roost features. The boxes will be erected at least 3 m from ground level in a south-east, south or south-west facing position, near vegetation, but with a clear flight path to the box. The boxes and flight paths to the box will remain unlit.
- Two hedgehog boxes.
- Four insect hotels.
- Four log piles.

6.0 Conclusions

The habitats present on Site are widespread, in both a local and national context. Those habitats with the greatest ecological value, including the woodland, of which the majority will be retained, whilst this habitat with scattered trees and scrub are to be retained on the boundaries. However, it is still anticipated that the development of the Site will result in a loss of biodiversity, which would be difficult to mitigate for on-Site, even with a substantial material change to the current development proposal layout. As such, it is recommended that an off-Site area be secured for biodiversity offsetting, or a bespoke agreement be achieved with the LPA for the purchase of Biodiversity Credits.

Eleven trees on Site have been identified to have bat roost potential and further survey work has been undertaken and determined that there are currently no roosting bats on-Site, however, pre-felling surveys will be required to check that there has been no change in their status on-Site..

Whilst there is likely to be a temporal delay in achieving the biodiversity objectives for the Site (i.e. whilst new habitats become established), it is anticipated that in the long term, providing a way forward can be agreed to deliver the necessary biodiversity net gain and appropriate mitigation for protected species has been implemented, there will be no significant residual effects on habitats or protected species resulting from the Proposed Development.

7.0 Disclaimer

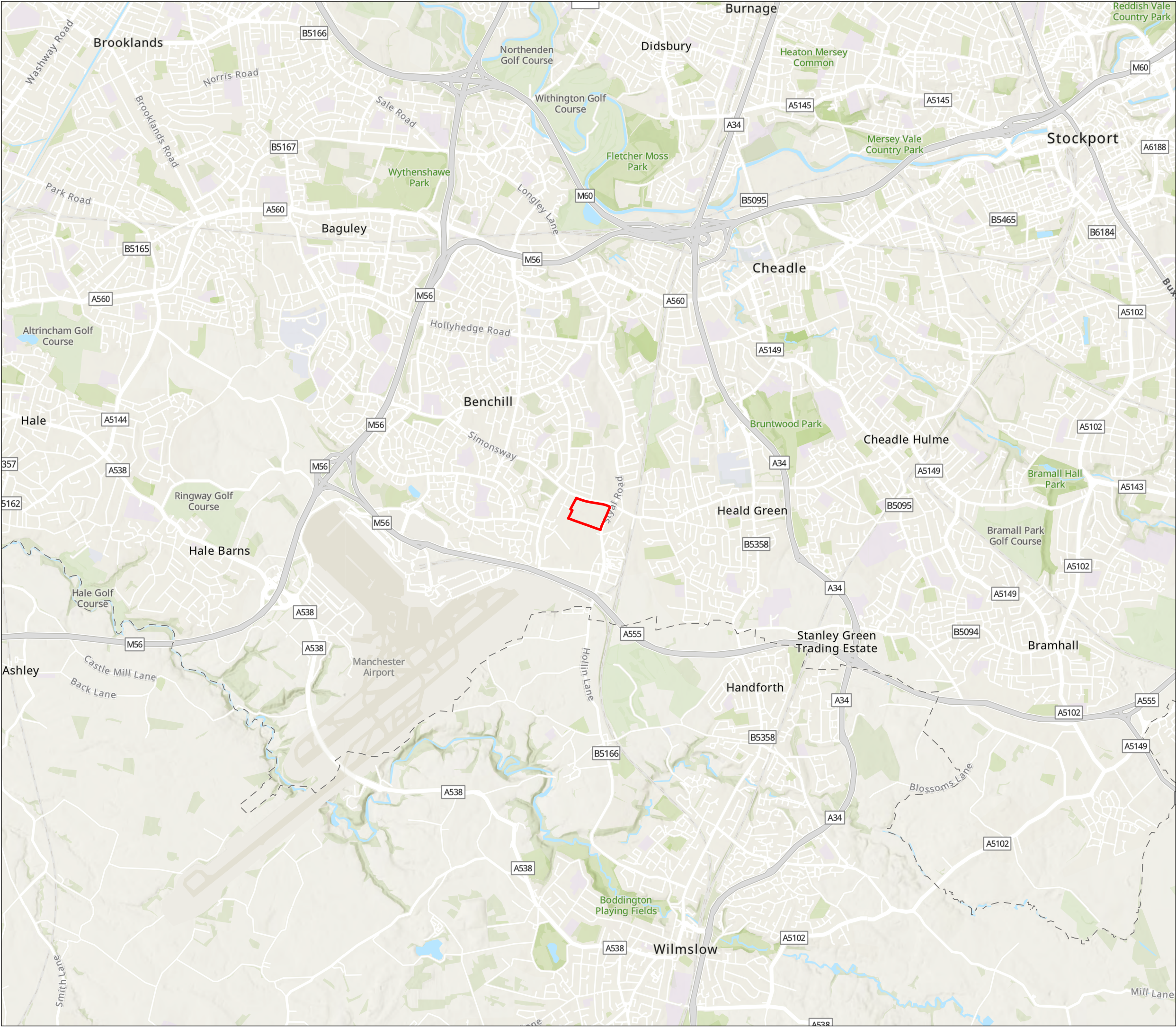
The recommendations contained in this report represent Delta-Simons Ltd professional opinions, based upon the information referred to in Section 1.0 of this report, exercising the duty of care required of an experienced Ecology Consultant. Delta-Simons Ltd does not warrant or guarantee that the Site is free of bats or other protected species.

The behaviour of animals can be unpredictable and may not conform to characteristics recorded in current scientific literature. This report, therefore, cannot predict with absolute certainty that animal species will or will not occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.

No part of the survey included an assessment of the materials and conditions of any buildings. No part of the survey included an asbestos assessment, nor did it represent an appraisal of other deleterious materials or hazardous substances.

This report was prepared by Delta-Simons Ltd for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons Ltd was instructed as defined in Section 1.0 of this report. Nothing contained in this report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons Ltd, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons Ltd does not intend, without its written consent, for this report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons Ltd from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Figure 1 – Site Location Plan



Legend

Site boundary

05001,0001,5002,000Meters

N

FigureSite Location Plan			
JobAtlas Business Park, Simonsway, Wythenshawe, Manchester			
ClientRidge and Partners LLP c/o AVIVA Investors			
Figure No.	1	Revision	A
		Date	14/10/2022
Drawn	KH	Checked	KR
		Scale	1:40,000 @ A3
Job No.	20-0739.06		Central GR383841E 385984N

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Figure 2 – Phase I Habitat Plan



Legend

- Site boundary
- Broadleaved woodland - semi-natural
- Scrub - dense/continuous
- SI Poor semi-improved grassland
- Ephemeral / short perennial
- Buildings
- Hardstanding
- Intact hedge - species-poor
- Fence
- Wall
- Earth bank
- Scattered broadleaved tree
- Scattered scrub
- 3 Target note

0

20

40

60

80 Meters

↑

N

↓

Figure	Habitat Survey Plan		
Job	Atlas Business Park, Simonsway, Wythenshawe, Manchester		
Client	Ridge and Partners LLP c/o AVIVA Investors		
Figure No.	2	Revision	A
		Date	14/10/2022
Drawn	KH	Checked	CD
		Scale	1:1,800 @ A3
Job No.	20-0739.06		Central GR
			383845E 385981N

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Figure 3 – Transect Route



- Legend**
- Site boundary
 - ➔ Transect route
 - Listening stop

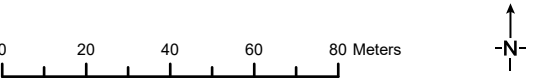


Figure	Transect Route				
Job	Atlas Business Park, Simonsway, Wythenshawe, Manchester				
Client	Ridge and Partners LLP c/o AVIVA Investors				
Figure No.	3	Revision	A	Date	14/10/2022
Drawn	KH	Checked	CD	Scale	1:1,800 @ A3
Job No.	20-0739.06			Central GR	383845E 385981N



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Figure 4 – Locations of Artificial Refugia



Legend

- Site boundary
- Artificial refugia

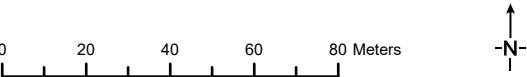


Figure	Locations of Artificial Refugia		
Job	Atlas Business Park, Simonsway, Wythenshawe, Manchester		
Client	Ridge and Partners LLP c/o AVIVA Investors		
Figure No.	4	Revision	A
		Date	14/10/2022
Drawn	KH	Checked	CD
		Scale	1:1,800 @ A3
Job No.	20-0739.06		Central GR
			383845E 385981N



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Figure 5 - Bat Roost Potential Assessment - Buildings and Trees



Legend

Site boundary

Trees BRP

- High
- Moderate
- Negligible

Tree Groups BRP

- High
- Moderate
- Negligible

Buildings BRP

- Low
- Negligible

B1 - Low BRP

B2 - Negligible BRP

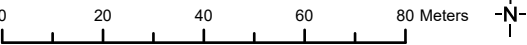


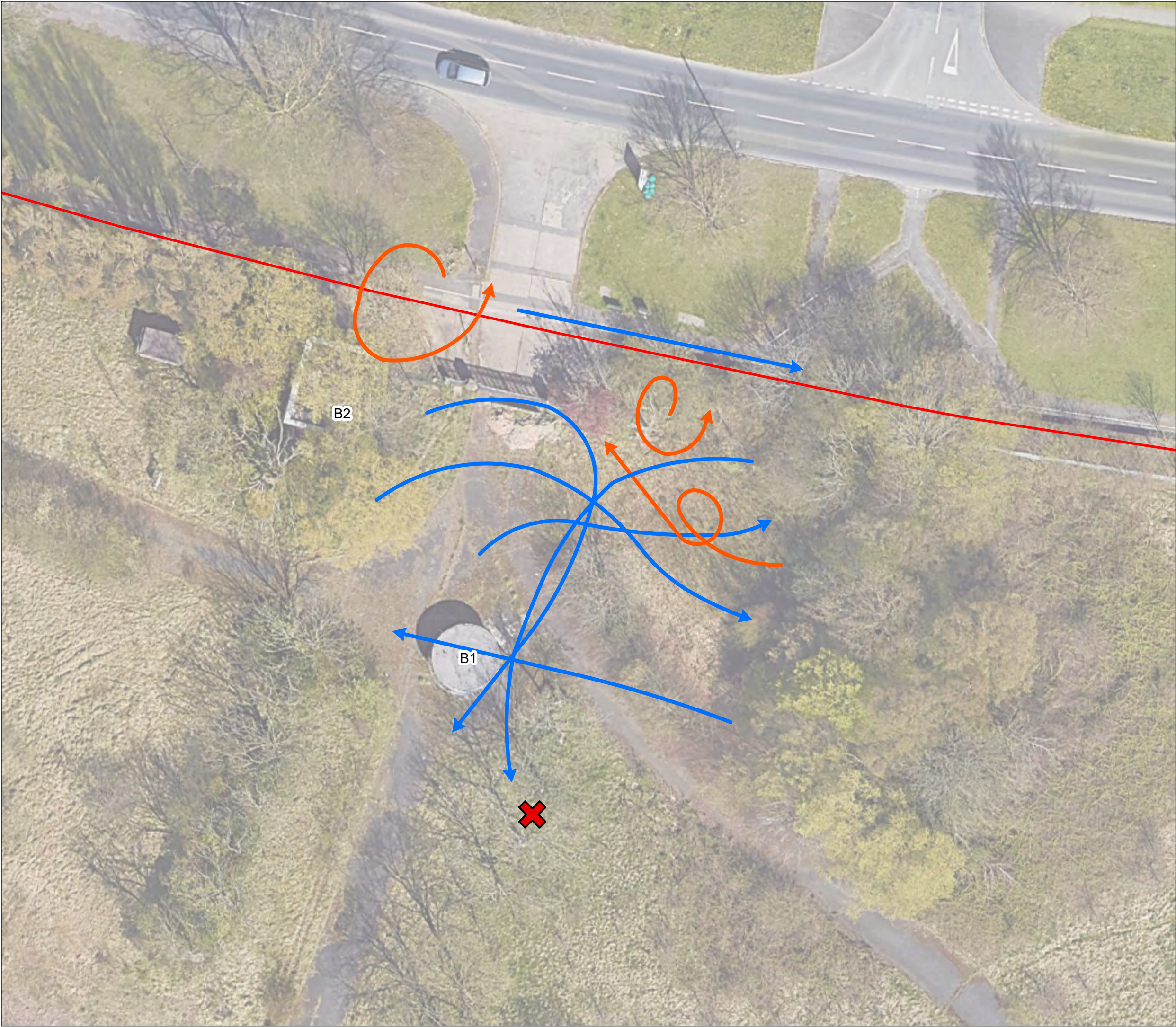
Figure	Bat Roost Potential Assessment		
Job	Atlas Business Park, Simonsway, Wythenshawe, Manchester		
Client	Ridge and Partners LLP c/o AVIVA Investors		
Figure No.	5	Revision	A
		Date	22/08/2023
Drawn	BB	Checked	CD
		Scale	1:1,500 @ A3
Job No.	20-0739.06		Central GR
			383845E 385981N



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Figure 6 – Surveyor Locations and Results of Dusk Emergence Survey – 13th September 2022



Legend

-  Site boundary
-  Foraging
-  Commuting
-  Surveyor location

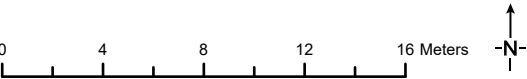


Figure			Surveyor Locations and Results of Dusk Emergence Survey – 13th September 2022		
Job			Atlas Business Park, Simonsway, Wythenshawe, Manchester		
Client			Ridge and Partners LLP c/o AVIVA Investors		
Figure No.	6	Revision	A	Date	14/10/2022
Drawn	KH	Checked	CD	Scale	1:300 @ A3
Job No.	20-0739.06			Central GR	383841E 386101N



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Figure 7 - Results of Transect Survey - 10th August 2022



Legend

-  Site boundary
-  Foraging
-  Commuting
-  Transect route
-  Listening stop

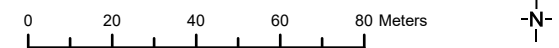


Figure	Results of Transect Survey – 10th August 2022		
Job	Atlas Business Park, Simonsway, Wythenshawe, Manchester		
Client	Ridge and Partners LLP c/o AVIVA Investors		
Figure No.	7	Revision	A
		Date	14/10/2022
Drawn	KH	Checked	CD
		Scale	1:1,800 @ A3
Job No.	20-0739.06		Central GR 383845E 385981N



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Figure 8 – Results of Transect Survey – 13th September 2022

Drawing 1 - 22-103-P-02A@A0 Soft Landscape Proposals

Appendix A - References

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The Protection of Badgers Act 1992. HMSO

Wildlife and Countryside Act 1981 (as amended). HMSO

Appendix B - Assessment of Structures, Trees and Habitats for Bats

Assessment of Structures, Trees and Habitats for Bats

Suitability	Description	
	Roosting	Commuting and Foraging
Negligible	An inspected structure or tree which is considered to have no features of importance for roosting bats. No further constraints apply to the method or timing of proposed works.	Negligible habitat features on-Site to support commuting or foraging bats.
Low	A structure with at least one or more features suitable to support opportunistic individual bats. However, inadequate space, shelter, protection and conditions, and the low suitability of surrounding habitats means that it is unlikely to be used as a maternity or hibernation roost site. A tree of adequate age and stature to support potential roosting features, however, either no features, or only features of limited potential recorded from the ground.	Habitat with potential to support low numbers of commuting bats due to its quality and connectivity. For example, a gappy hedgerow or unvegetated stream that is isolated from the surrounding landscape. Alternatively, suitable but isolated habitats suitable to support low numbers of foraging bats such as a lone tree or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that are of adequate size, shelter and protection, with suitable conditions and surrounding habitat to support a bat roost not of high conservation status (with respect to roost type not individual species conservation status).	Linear habitat continuity connecting to the wider landscape offering potential to support commuting bats, such as rows of trees and scrub or linked back gardens. Habitat such as trees, scrub, grassland or a waterbody with connectivity to the wider landscape offering foraging opportunities for bats.
High	A structure or tree with one or more potential roost sites that are suitable for use by large numbers of bats on a regular basis and for long periods of time due to their size, shelter, protection, conditions and the surrounding habitat.	Continuous high-quality habitat with strong connectivity to the wider landscape that is likely to be used by commuting bats on a regular basis, such as flowing waterbodies, hedgerows, rows of trees and woodland edges. High quality habitat with strong connectivity to the wider landscape that is likely to be regularly used by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to, and connected to, known roost sites.

Guidance on Assessing the Potential Suitability of Development Sites to Support Bats (adapted from Collins, J. (ed)).

Appendix C - Ecological Impact Assessment Methodology

Ecological Impact Assessment Methodology

The methodology for the EclA follows the principles set out within the Guidelines for Ecological Impact Assessment (EclA) in the UK and Ireland; Terrestrial, Freshwater, Coastal and Marine updated by the Chartered Institute of Ecology and Environmental Management (CIEEM) in 2019 and comprises a staged approach to assessing the potential impacts resulting from the proposed development on the ecological features within the ZOI.

The EclA has involved the following stages:

- Determination of baseline conditions;
- Identification of important ecological features;
- Identification of potential impacts and effects;
- Identifying likely significant effects;
- Designing appropriate avoidance and/or mitigation for impacts and effects;
- Assessment of residual effect significance;
- Assessment of cumulative impacts and effects; and
- Identification of compensation and enhancement measures.

Baseline Conditions

Baseline conditions have been established following the methodology outlined in the above sections.

Important Ecological Features

Important ecological features have been identified based on existing statutory, policy and conservation objectives. In accordance with the CIEEM Guidelines the value or potential value of an ecological resource has been determined within a defined geographical context in line with the table below.

Potential Impacts and Effects

The potential impacts on any important ecological features are identified during construction and operation, and prior to any mitigation, based on available baseline data, an assessment of design proposals and construction methods, and available information on the existing conservation status of the features in question.

Impacts are then characterised in terms of the following attributes:

- Positive or negative – i.e. a change that improves or reduces the quality of the environment;
- Magnitude – i.e. the size of an impact in quantitative terms where possible;
- Extent – i.e. the area over which an impact occurs;
- Duration – i.e. the time for which an impact is expected to last;
- Reversibility – i.e. is the impact permanent or temporary; and
- Timing and frequency – e.g. related to breeding seasons.

The likely effects of potential impacts on important ecological features largely depend upon their sensitivity, whilst the level of certainty that an impact will occur as predicted is based on professional judgment. Only the impacts likely to result in significant effects have been described in detail within the report. Impacts that are either unlikely to occur, or if they did occur are unlikely to be significant have been scoped out and justification for scoping out provided.

Geographic Scale	Example Criteria for Classification at each Geographic Scale
International	Habitats meeting the criteria for Wetlands of International Importance (Ramsar), Special Area of Conservation (SAC) or Special Protection Area (SPA) site. A species present in internationally important numbers (>1% of international population). Notable species which is part of the cited interest of an SPA or SAC and which regularly occurs in internationally or nationally important numbers.
National	Habitats meeting the criteria for a Site of Special Scientific Interest, Marine Conservation Zone (MCZ), or National Nature Reserve (NNR). A species present in nationally important numbers (>1% of UK population). A species which is part of the cited interest of a SSSI and which regularly occurs in internationally or nationally important numbers. Rare breeding species (e.g. birds with <300 UK breeding pairs).
Regional	A local site with important regional habitats or significant populations of Species of Principal Importance (SPIs) under the NERC act. Species present in regionally important numbers (>1% of regional population). Species listed as priority species, which are not covered above, and which regularly occur in regionally important numbers. Sustainable populations of a species that is rare or scarce within a region. Species on the Birds of Conservation Concern (BoCC) Red or Amber List and which regularly occur in regionally important numbers.
County	A local site with a habitat that is characteristic of the county or rare on a county scale, or with significant populations of locally important species. Species present in county important numbers (>1% of county population). Species listed as priority species, which are not covered above, and which regularly occur in county important numbers. Sustainable population of a species that is rare or scarce within a county. A site designated for its county important assemblage of species. Species on the BoCC Red or Amber List and which regularly occur in county important numbers.
Local	A site which has wildlife corridors likely to be essential to allow viable movement of species or improve the biodiversity of the area. Species listed as priority species, which are not covered above, and are rare in the locality. Species present in numbers just under county importance (<1% of county population). Sustainable population of a species that is rare or scarce within the locality. A site whose designation is just under for inclusion for its county important assemblage of a particular species on site. Other species on the BoCC Red or Amber List and which are considered to regularly occur in locally important numbers.

Likely Significant Effects

In accordance with the CIEEM guidelines, an ecologically significant effect is 'an effect that either supports or undermines the biodiversity conservation objectives for 'important ecological features' or for biodiversity in general'.

Using an approach to valuing impacts that involves professional judgement and reference to available conservation objectives, neutral and minor effects are considered to be not significant, while moderate and major effects are assessed to be significant. The table below provides a comparison of the terms used.

Effect Significance	Type of Effect	Equivalent CIEEM Assessment
Significant	Major beneficial	Significant positive impact on biodiversity conservation objectives at given geographical context
	Moderate beneficial	Positive impact on biodiversity conservation objectives at given geographical context
Non-significant	Minor beneficial	Limited positive impact on biodiversity conservation objectives at given geographical context
Neutral	Negligible	No significant impact on biodiversity conservation objectives at given geographical context
Non-significant	Minor adverse	Limited adverse impact on biodiversity conservation objectives at given geographical context
Significant	Moderate adverse	Adverse impact on biodiversity conservation objectives at given geographical context
	Major adverse	Significant adverse impact on biodiversity conservation objectives at given geographical context

The evaluation of significant effects has been based on the best available scientific evidence. Where sufficient evidence is not available, the precautionary principle has been applied. Therefore, where it is not possible to robustly justify a conclusion of no significant effect, a significant effect has been assumed. Any uncertainty has been acknowledged within the report.

Avoidance and/or Mitigation

Negative impacts have been avoided and/or mitigated where possible, in line with the mitigation hierarchy as presented within the CIEEM Guidelines.

Assessment of Residual Effect Significance

Once the impacts of the proposed development have been assessed, and all attempts to avoid and mitigate ecological impacts have been finalised, an assessment of the residual impacts is undertaken to determine the significance of their effects upon ecological features.

Cumulative Impact Assessment

The following types of future development within the same zone of influence have been considered as part of the cumulative impact assessment in relation to each important ecological feature:

- Proposals for which consent has been applied which are awaiting determination and are visible on the local planning portal;

- Projects which have been granted planning consent, but which have not yet been started or which have been started but are not yet completed (i.e. under construction); and
- Proposals which have been refused permission but which are subject to appeal and the appeal is undetermined.

Compensation and Enhancement

Compensation measures were taken to offset residual effects resulting in the loss of, or permanent damage to ecological features despite mitigation, where required. Compensation has only been considered as a last resort, in line with the mitigation hierarchy.

Enhancement measures have been agreed over and above any mitigation or compensation measures, in order to provide a biodiversity net gain.

Appendix D - Site Photographs

Site Photographs



Photograph 1 - Woodland



Photograph 2 - Woodland



Photograph 3 - Dense, self-set scrub in the southern extent of the Site



Photograph 4 - Scattered scrub within grassland



Photograph 5 - Lombardy poplar and scattered trees



Photograph 6 - Scattered trees in southern extent of the Site



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Photograph 7 - Poor semi-improved grassland. Rank and tussocky



Photograph 8 - Building 1



Photograph 9 - Building 2



Photograph 10 - Building 2 following tree damage



Photograph 11 - Demolition rubble in the western extent of the Site



Photograph 12 - Pooling water on demolition rubble



Photograph 13 - Spoil mound



Photograph 14 - Log pile in southern extent of the Site



Photograph 15 - Hardstanding in centre of the Site



Photograph 16 - Fenced carpark in western extent of the Site



Photograph 17 - Gaps into roof timbers on southern aspect of B1



Photograph 18 - Tree 18, mature dying oak tree with High BRP



Photograph 19 - Tree 19 Dead oak tree with High BRP

Appendix E - Results of the Roost Presence/Absence Surveys - Buildings

Results of the Roost Presence/Absence Surveys - Buildings

Dusk Survey 13th September 2022

Surveyor Location	Time of Sighting	Location of Sighting	Species	Behaviour (e.g. swarming, foraging, commuting)	No of passes within timeframe
South of Building 1	19:45 - 19:47	Overhead, flying south	C.pip	Commuting	1
	19:47 - 19:50	Overhead	C.pip	Commuting	3
	19:49 - 19:51	Flying west over building	C.pip	Foraging	2
	19:57 - 19:58	Foraging north of building	C.pip	Foraging	4
	20:01	Flying south over building	C.pip	Commuting	1
	20:19	Foraging northwest of building	C.pip	Foraging	1
	20:29 - 20:32	Flying east, north of building	BLE	Commuting	2
	20:31 - 20:45	Heard, not seen	C.pip	Foraging	9
	20:47	Heard, not seen	BLE	Unknown	1
	20:48 - 20:54	Heard, not seen	C.pip	Foraging	4
	20:56	Flying west over building	C.pip	Commuting	1

Appendix F - Results of the Activity Transect Surveys

Results of The Activity Transect Surveys

Bat Activity Survey 10th August 2022

Transect 1			
Time	Species	Location	Activity/Comments
21:11	Common pipistrelle	Listening Stop (LS) 4	Foraging above B1
21:17	Noctule	LS5	Heard, not seen
21:26	C.pip	LS6	Heard, not seen
21:41	C.pip	Between LS8 and LS1	Heard, not seen
21:49	C.pip	Between LS1 and LS2	Heard, not seen
21:50 - 51	C.pip	LS2	Heard, not seen, very faint
21:51	C.pip	LS2	Foraging along treeline
21:54	C.pip	Between LS2 and LS3	Commuting along fence line
21:59	Soprano pipistrelle	LS3	Heard, not seen
22:02	C.pip	Between LS3 and LS4	Heard, not seen
22:06	C.pip	LS4	Heard, not seen
22:19	C.pip	LS6	Heard, not seen
22:30	C.pip	LS8	Heard, not seen

Bat Activity Survey 13th September 2022

Transect 2			
Time	Species	Location	Activity/Comments
19:49	C.pip	Between the two buildings	Seen, not heard, foraging above building 1
20:03	C.pip	LS6	Heard, not seen
20:09	C.pip	LS7	Heard, not seen
20:13	C.pip	LS8	Foraging overhead
20:19	C.pip	LS1	Foraging above large poplar
20:24	C.pip	LS2	Two bats foraging along tree line