FORMER METHODIST CHURCH, LIVERPOOL ROAD, MAGHULL

Bat Report & Preliminary Ecological Appraisal (PEA)

Client:

DarntonB3 Limited

Report Reference:

RSE_6895_R1_V1_Bat Report

Issue Date:

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ECOLOGY
FLOOD RISK
ARBORICULTURE
HABITATS
TRAINING

CIEEM
REGISTERED PRACTICE 2021-2022

PROJECT				
Client:	DarntonB3 Limited			
Project:	Former Methodist Church, Liverpool Road, Maghull			
Reference	RSE_6895_R1_V1_Bat Report			
Report Title	Bat Report and Preliminary Ecological Appraisal			
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DISCLOSURE:

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1 INTRODUCTION

1.1 Terms of Reference

i RammSanderson Ecology Ltd (RS) were commissioned by DarntonB3 Limited to undertake a Preliminary Ecological Appraisal (PEA), bat building assessment (BBA) and nocturnal bat surveys to assess the potential ecological constraints to the proposed Coop new build store (hereafter referred to as the Scheme), located at Maghull former methodist church off Liverpool Road North, Maghull, Merseyside.

ii All land situated within the red line of the Scheme is hereafter referred to as the Site and is shown on Figure 1.

iii The PEA has been undertaken with reference to current good practice and forms part of the technical information commissioned by DarntonB3 Limited in connection with the Scheme. The results of the PEA are presented in this Bat Survey and PEA report (PEAR), which addresses relevant wildlife legislation and planning policy as summarised in Appendix 1. The PEAR is consistent with the requirements of British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development.

iv This PEAR is intended for advice in respect of Scheme design, site layout and / or site investigation. Further ecological surveys and / or ecological impact assessment (including detailed mitigation measures) may be required in connection with a planning application or to contribute to an Environmental Impact Assessment once the Scheme proposals have been finalised and any required surveys have been completed.

1.2 The Scheme

i The Scheme proposed for development consists of the demolition of the existing buildings on Site and the development of a Coop new build store.

1.3 The Site

i The Site is located off Liverpool Road, Maghull, Merseyside at central grid reference (SD 37371 403186). The Site comprises of a disused Methodist Church with associated outbuildings and car parking. The Site is bounded by residential properties to the north, south and east. Liverpool Road lies adjacent to the western boundary of the Site.

1.4 Scope of the Preliminary Ecological Appraisal

i This Bat Survey and PEAR presents ecological information obtained during the following:

A desk-study undertaken on 22nd March 2023 to obtain records of designated sites, notable habitats[1] and protected and notable species[2] up to 500m of the Site (the area covered by the desk study is hereafter referred to as the Study Area;

A walkover survey of accessible land within and adjacent to the Site (the area covered by the survey is hereafter referred to as the Survey Area) on 30th March 2023;

A Preliminary Bat Roost Assessment (PBRA) of the five buildings situated on the Site on 30th March 2023 and;

Nocturnal emergence surveys of building 1a/b and building 2 to determine the presence/absence of roosting bats on 13th June 2023, 12th July 2023 and 1st August 2023.

ii The purpose of the bat surveys and PEA is to provide a high-level ecological appraisal of the Site, specifically to:

establish baseline conditions and determine the presence of Important Ecological Features (IEF)[3] (or those that could be present), as far as is possible;

to identify potential ecological constraints to the Scheme and make initial recommendations to avoid impacts on IEFs, where possible;

to identify requirements for mitigation, where possible, including mitigation measures that will be required and those that may be required (depending on results of further surveys or final scheme design);

to establish any requirements for more detailed surveys; and,

to identify any opportunities offered by the Scheme to deliver biodiversity enhancements.

i. The methodology followed for undertaking the desk study and field surveys is detailed in Appendix 2.

[1] Notable habitats are taken as principal habitats for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; habitats listed under the LOCAL Biodiversity Action Plan (BAP); hedgerows identified as being 'important' under the wildlife criteria of the Hedgerow Regulations 1997, ancient woodlands and veteran trees.

[2] Notable species are taken as principal species for the conservation of biodiversity listed under Section 41 of the Natural Environment and Rural Communities Act 2006; any species listed in an IUCN Red Data Book; and any other species listed under the LOCAL BAP.

[3] Important Ecological Features are habitats, species, ecosystems and their functions and processes that are of conservation importance and could potentially be affected by the Scheme.

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Title: Site Context Plan		
Project: Former Methodist Church, Liverpool Road, Maghull		
Client: DB3 Architecture		
Date: 22/03/2023	Fig:01	Author: WA
A4 Scale: 1:400	ID: RSE_6895_STC_0323_V1R1	

2 METHODOLOGY

2.1 Impact Appraisal

In appraising any impacts, the review considers DarntonB3 Limited proposals and any subsequent recommendations made are proportionate and appropriate to the site and have considered the Mitigation Hierarchy as identified below:

Avoid: Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
Mitigate: Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
Compensate: Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
Enhance: The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.

2.2 Desk Based Assessment

Data regarding statutory and non-statutory designated sites, plus any records of protected or notable species and habitats was requested from the local ecological records centre and online resources, details of which are provided in Table 1below.

Table 1: Consulted Resources

Consultee/Resource	Data Sought	Search Radius from Boundary
Merseyside Biobank	Non-Statutory Site Designations, protected/notable species records	500m
www.magic.gov.uk[4] [5]	Statutory Site Designations	500m
	NERC Act (2006) Habitats	500m

NB: Desk study data is third party controlled data, purchased or consulted for the purposes of this report only. RammSanderson Ecology Ltd cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

2.3 Phase 1 Habitat Survey

An extended Phase 1 Habitat Survey of the site was completed to identify habitats present within the site. All habitats within and adjacent to the site boundary were described and mapped following standard Phase 1 Habitat Survey methodology (JNCC, 2010), which categorises habitat type through the identification of individual plant species.

[4] Multi Agency Geographic Information for the Countryside Interactive GIS Map.
[5] MAGIC resource was reviewed on the 22/03/2023

ii Nomenclature follows Stace (Stace, 2010) for vascular plant species and the DAFOR scale for relative abundance was used in the field to determine dominant plants within habitats and communities (D = dominant, A = abundant, F = frequent, O = occasional and R = rare).

2.4 Protected / Notable Species Scoping Assessment

I The habitats on site were assessed for their suitability for supporting any legally protected or notable species that would be affected by the proposed development. This includes invasive non-native plant species such as Japanese knotweed (Fallopia japonica), Himalayan balsam (Impatiens glandulifera) and giant hogweed (Heracleum mantegazzianum).

ii Any incidental sightings of individual species or field signs such as footprints, latrines or feeding remains discovered during the survey were noted. In the case of bats, specific quantitative assessment methodologies have been adopted industry wide and details of these are provided below.

2.5 Tree and Building Bat Roost Suitability Assessment

I The site, including the buildings on Site, were assessed by an ecologist and graded as to their suitability for supporting roosting bats using the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Survey Guidelines* (Collins, J. Eds. 2016), an extract of which is provided interpreted in the table below.

Table 2: Criteria for bat roost potential assessment of buildings and trees

Roost Potential	Description	Surveys Required (Buildings)	Surveys Required (Trees)
Confirmed roost	Evidence of roosting bats found during initial daytime inspection.	3 – including 1 dawn as a minimum	3 – including 1 dawn as a minimum
High *	Structures with one or more features suitable for bat roosting, with obvious suitability for larger numbers of bats.	3 – including 1 dawn as a minimum	3 – including 1 dawn as a minimum
Moderate	Structure with one or more potential roost sites that could be used due to size, shelter and protection but unlikely to support a roost of high conservation status.	2– including 1 dawn as a minimum	2– including 1 dawn as a minimum
Low	Structure with one or more potential roosting sites used by individual bats opportunistically. Insufficient space, shelter or protection to be used by large numbers of bats.	1 Survey	Precautionary Mitigation Approach, some instances may require further survey
Negligible	No or negligible features identified that are likely to be used by roosting bats	None	None

* *Unless it is a confirmed roost, additional surveys are required of buildings to assess presence / likely absence of a roost. The number of surveys are indicative to give confidence in a negative result, i.e. where no bats are found, confidence in a result can be taken.*

2.6 Dusk emergence surveys

Nocturnal emergence surveys were conducted of Buildings B1a, B1b and B2. The dusk emergence surveys commenced 15 minutes before sunset and proceeded until all species of bat would be expected to have left the buildings (approximately 1.5-2 hours after sunset). All surveys were carried out in optimal weather conditions, within the bat active period and followed Bat Conservation Trust methodologies (BCT, 2016)

2.7 Limitations

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Building 2 (B2) was set on fire twice between the PBRA and the commencing of the nocturnal surveys. However, B2 was assessed as offering low potential for roosting bats, therefore this was not considered to pose a significant limitation to the surveys.

2.8 Accurate lifespan of ecological data

The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for approximately 2 years, notwithstanding any considerable changes to the site conditions.

3 RESULTS

3.1 Surveyor Competency

i The PEA and PBRA were carried out by Emilia Adamson MBiolSci (Hons) and assisted by William Andrews MSc BSc (hons). The dusk emergence surveys were carried out by Emilia Adamson and assisted by Amy Spilsbury BSc (hons), Alex Smart BSc (hons), Harry Sunter MSc BSc (hons), Luke Barnard BSc (hons) and Henry Stephenson BSc (hons). Emilia also holds a class one licence for GCN 2022-10747-CL08-GCN and has been a professional ecologist since 2018. All assistant surveyors were suitably qualified to conduct the surveys. The survey was completed during suitable conditions as detailed in the table below.

Table 3: Summary of conditions during survey

Abiotic Factor	Survey 1	Survey 2	Survey 3	Survey 4
Survey type	PBRA/ PEA	Dusk Emergence	Dusk Emergence	Dusk Emergence
Date completed	30/03/2023	13/06/2023	12/07/2023	01/08/2023
Temperature	13° C	22° C	16° C	16° C
Wind speed (Beaufort Scale)	2	1	1	0
Cloud cover	75%	0%	75%	75%
Precipitation	0	0	0	0

3.2 Desk Study

3.2.1 Designated Sites

i There were no statutory or non-statutory designated sites found within 500m of the Site.

3.2.1 Habitats

ii There were no priority habitats found within 500m of the Site.

3.2.1 Protected/Principal Species

iii 11 recent records of protected/principal species were recorded within 500m of the Site. For full desk study data refer to Appendix 3.

iv The most relevant of these are bat records, the closest of which was 350m southwest of the Site.

3.3 Habitats

i Summary descriptions of the habitats within the Survey Area are provided below in Table 3 with specific features highlighted by TNs.

ii Habitat types detailed are listed in order of the Phase 1 Habitat Survey Handbook (Joint Nature Conservation Committee, 2010). The species list provided in this report reflect only those taxa observed during the survey and are not an exhaustive list of all species that may be present, as the survey only provides a snapshot of the Site.

Table 4: Habitats within Survey Area

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
A2.1 Scrub Dense/ continuous	Dense scrub was located along the eastern portion of Site. This was dominated by bramble (*Rubus fruticosus*) with frequent common nettle (*Urtica dioica*), green alkanet (*Pentaglottis sempervirens*), ivy (*Hedera helix*) and cleavers (*Galium aparine*). Dock (*Rumex obtusifolius*) and daffodil (*Narcissus*) were seen occasionally, and elder (*Sambucus nigra*) and cherry laurel (*Prunus laurocerasus*) were seen on Site but classed as rare. A small section of dense scrub was located within the southern portion of Site. This was dominated by ivy with frequent hawthorn (*Crataegus monogyna*) and privet (*Ligustrum ovalifolium*), common nettle, periwinkle (*Vinca*) and green alkanet seen rarely.	n/ a	n/ a	Low ecological value. To be lost within current proposals.	 

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
A2.2 Scattered scrub	A small area of scattered scrub was located in the southwestern corner of Site consisting of hawthorn	n/a	n/a	Low ecological value. To be lost within current proposals.	
B6 Poor semi improved grassland	A parcel of semi-improved grassland was located in the south west corner of Site. This was co dominated by red fescue (*Festuca rubra*) and moss with frequent stitchwort sp (*Stellaria holostea*), dandelion (*Taraxacum officinale*), yarrow (*Achillea millefolium*), geranium sp (*Geranium maculatum*), white clover (*Trifolium repens*) and perennial rye grass (*Lolium perenne*). Daisy (*Bellis perennis*), ragwort (*Jacobaea vulgaris*), bristly oxtongue (*Picris echioides*) and ribwort plantain (*Plantago lanceolata*) were seen occasionally on Site. Speedwell sp (*Veronica sp*), grape hyacinth (*Muscari armeniacum*) and shepherds' purse (*Capsella bursa-pastoris*) were present on Site but classed as rare.	n/a	n/a	Limited ecological value. To be lost within current proposals.	n/a

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
C3.1 Tall ruderal	A parcel of tall ruderal is located along the northeastern boundary of the site. This is dominated by perennial rye grass with abundant common nettle, alkanet (*Pentaglottis sempervirens*) and greater celandine (*Chelidonium majus*). Dandelion and bramble were also present but classed as rare.	n/a	n/a	Limited ecological value. To be lost within current proposals.	
J1.4 Introduced shrub	Several parcels of introduced shrub are present on Site. Two parcels were located in the northwest corner of Site. The first parcel consisted of frequent cotoneaster (*Cotoneum*), occasional barberry (*Berberis vulgaris*) and Japanese laurel (*Aucuba japonica*) which was seen as rare. The ground layer was dominated by common nettle and dandelion with occasional ivy. Bracken (*Pteridium aquilinum*) and harts tongue fern (*Asplenium scolopendrium*) were present but classed as rare. The second parcel was situated in the northwest corner and was dominated by cotoneaster with occasional cleavers and cow parsley (*Anthriscus sylvestris*). Dandelion and sedge (*Carex sp*) were present but seen as rare. A third parcel was located in the southwest portion of Site, adjacent to building B1b. this consisted of frequent periwinkle with occasional dandelion, lavender (*Lavandula angustifolia*), tulip (*Tulipa*), rose (*Rosa*) and barberry. A fourth parcel was situated in the centre of Site	n/a	n/a	Limited ecological value. To be lost within current proposals.	

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
J.5 Buildings	Five buildings in total were located throughout the Site. See Appendix 4 for more details.	n/a	n/a	Of some ecological value. To be lost within current proposals.	 

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
Hardstanding	Hardstanding is present through the majority of the Site	n/a	n/a	Negligible ecological importance. To be lost within current proposals.	

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
J2.2.2 Species poor defunct hedge	A defunct species poor hedgerow which was 3m tall and 1.5m wide was located along the southwest corner of the Site. This consisted of frequent sycamore (*Acer pseudoplatanus*), with occasional blackthorn (*Prunus spinosa*), hawthorn and oak (*Quercus robur*) rarely.	n/a	n/a	Limited ecological value. To be lost within current proposals.	

Habitat	Description	Area (m^2)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
J2.3.2 Species poor hedge with trees	A species poor hedge with trees which was 2m tall and 2m wide was located along the southern border of the Site. The hedge consisted of privet (*Ligustrum vulgare*). Tree species were dominated by sycamore with willow (*Salix alba*) rarely present. The understorey was dominated by ivy with frequent common nettle and daffodil. Green alkanet and cleavers were occasionally present. Spear thistle (*Cirsium vulgare*) was also present but seen as rare.	n/a	n/a	Low ecological value. To be lost within current proposals.	

3.4 Bat Survey Results

3.2.1 Site Description

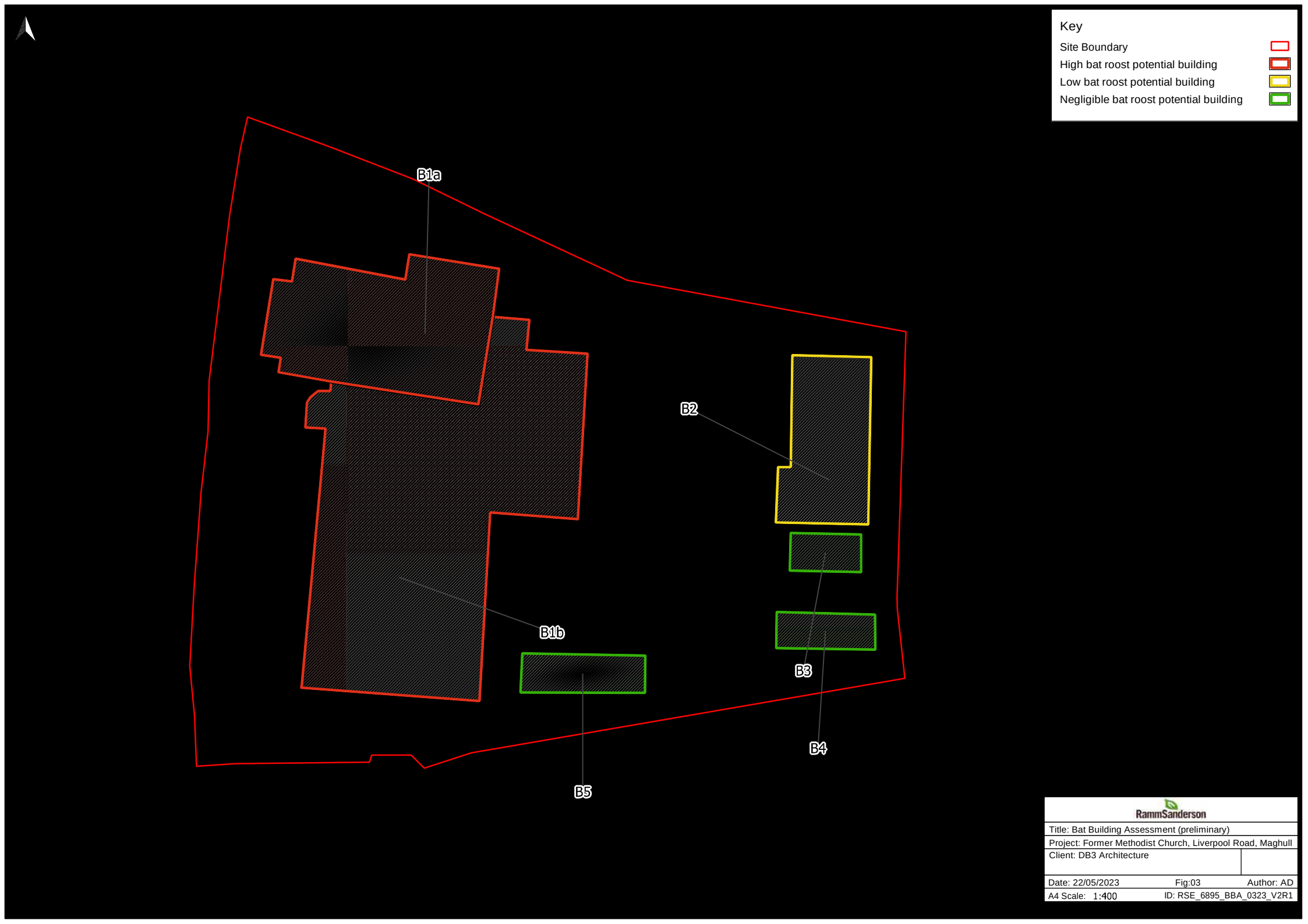
i Building 1 was split into an older section (B1a) and a modern section (B1b) and consisted of the main former methodist church building. Buildings 2, 3, 4, 5 were a series of single storey outbuildings associated with the former Methodist Church situated to the east.

ii A full descriptions of the buildings and their condition is given in Table 10.

Figure 2: General View of Site

3.2.1 Bat Building Assessment

iii B1a/b was in the western section of Site. The loft area of B1a was inaccessible and thus the chance of an active roost is this section of the building could not be ruled out. Numerous potential access points were located within the interior and exterior of B1a/b and therefore the building was assessed as offering high potential to support roosting bats. B2 was located within the eastern section of Site and demonstrated a lack of suitable access points and insufficient space and shelter for large numbers of bats. As a result, B2 was assessed as offering low potential to support roosting bats. B3 and B4 located within the southeastern section of Site and B5 located within the southern portion of Site were all assessed as offering negligible potential to support roosting bats. Locations of buildings are shown in Figure 3. Full assessment results are in Appendix 4.


Key
Site Boundary
High bat roost potential building
Low bat roost potential building
Negligible bat roost potential building
B1a
B2
B1b
B3
B4
B5
RammSanderson
Title: Bat Building Assessment (preliminary)
Project: Former Methodist Church, Liverpool Road, Maghull
Client: DB3 Architecture
Date: 22/05/2023
Fig:03
Author: AD
A4 Scale: 1:400
ID: RSE_6895_BBA_0323_V2R1

3.2.1 Nocturnal Bat Survey Results

13th June - Dusk

iv Five surveyors were optimally positioned to survey B1a, B1b, and B2 Surveyors were located: one facing the northeast corner of B1b, one facing the western aspect of B2, one to the north of B5 facing the southeastern aspect of B1b, one facing the western aspect of B1a and B1b and one to the north west corner of B1a. Sunset was at 21:41 and the survey started at 21:26 and finished at 23:11. No emergences were recorded during the survey. The first bats recorded were a commuting common pipistrelle and a foraging common pipistrelle at 22:14. Activity was generally low throughout the survey Site with the highest activity found in the southeastern portion of Site. Two common pipistrelles were recorded commuting west over B1b at 22:15. One common pipistrelle was recorded commuting along the northern aspect of B1a before heading north at 22:45. Eight common pipistrelle were recorded foraging and commuting around the southeastern and eastern portion of Site between 22:14 and 22:50. The last bat was recorded at 22:56, this was a common pipistrelle that was heard but not seen.

12th July – Dusk

v Four surveyors were optimally positioned to survey B1a and B1b. Surveyors were located: one west of B1a, one located to the southwest facing B1a and B1b, one facing the eastern aspect of B1b and one located north east of B1. Sunset was at 21:27 and the survey started at 21:22 and finished at 23:07. Activity was limited throughout the survey and no emergences were recorded during the survey. The first bat recorded was a common pipistrelle that was heard but not seen at 22:12. Activity was generally low throughout the survey Site with highest activity along the eastern and northeastern aspects of B1b. Four common pipistrelles were recorded foraging near to the northeast corner of B1a and B1b between 22:04 and 22:40. One common pipistrelle was recorded commuting along the northeastern aspect of B1a and B1b at 22:23. Heard but not seen recordings for common pipistrelle occurred throughout the survey. The last bat was recorded at 23:07, this was a common pipistrelle that was heard but not seen.

1st August – Dusk

iv Four surveyors were optimally positioned to survey B1a and B1b. Surveyors were located: one facing the northwest corner of B1a, one situated facing the northern aspect of B1a and B1b, one facing the eastern aspect of B1b and one facing the western aspect of B1b. Sunset was at 21:09 and the survey started at 20:53 and finished at 22:38. No emergences were recorded during the survey. The first bat recorded was a common pipistrelle that was heard but not seen at 21:36. Activity was generally low throughout the survey Site with highest activity found along the eastern aspect of B1b. two common pipistrelles were recorded commuting along the north west portion of Site at 21:37. Two common pipistrelles were seen commuting east along B1a at 21:37 and 21:50. One common pipistrelle was seen commuting west over B1b at 21:40. At 21:55 and 22:03 two separate common pipistrelles commuted north over B1b. One common pipistrelle was seen foraging over B1b at 21:56. One common pipistrelle commuted north along the western aspect of B1b at 22:04 and eleven common pipistrelles were recorded commuting and foraging along the eastern aspect of B1b between 21:37 and 22:07. The last bat was recorded at 22:39, this was a common pipistrelle that was heard but not seen.

3.5 Nesting Birds

The introduced shrub, species poor hedgerow with trees and scattered trees provided suitable habitat for nesting birds. The limited extent of suitable habitat provision however will limit this to very low numbers of breeding birds. Works require the removal of a small number of the trees on site and areas of introduced shrub and tall ruderal.

3.6 Hedgehog

The record search revealed 29 records of hedgehog (*Erinaceus europaeus*) within 500m of the Site. The grassland and scrub on site offered suitable habitat for foraging and commuting hedgehogs. As such, the chance that hedgehog may pass through the Site cannot be ruled out and all works should be undertaken following a precautionary method of works as mentioned in section 5.

3.7 Other Notable Fauna Species

Due to a lack of suitable habitats, the Site is not considered likely to support any other legally protected or notable species.

4 IMPACTS

4.1 Bats

i The nocturnal surveys demonstrated use of the site by two species of bat as a commuting and foraging resource. The species poor hedge with trees situated along the southern border of Site and dense scrub and introduced shrub bordering the northeastern portion of Site was used by common pipistrelle and noctule on multiple occasions as a foraging resource and as a commuting route. No emergences were recorded during any of the surveys. As a result, the redevelopment or demolition of these buildings would not require an EPSL (European Protected Species Licence) for bats. Absence of bats can never be completely confirmed, due to the quantity of suitable access points on these buildings, and the residual chance that these open buildings may be utilised on infrequent occasions by transient and opportunistic bats within the summer months. Therefore, it is recommended that a precautionary method of works be adopted for building 1a/ b.

ii The works should be completed following an ecologist inspection and / or dawn swarming survey (depending upon the time of year) and in the extremely unlikely event that a bat is found during redevelopment or demolition of these buildings, work should cease and a qualified ecologist should be notified immediately. No further survey work or mitigation is required for buildings 2 – 5.

4.2 Nesting Birds

i All species of bird, whilst nesting are protected under the Wildlife and Countryside Act (1981) as amended. Therefore, site demolition and clearance works should avoid the bird nesting season which runs from March to August inclusively. If this is not possible, works within this period should be preceded by an inspection for nesting birds by an ecologist. Where active nests are found, working restrictions would be put in place until follow up survey can demonstrate that all chicks have fledged.

4.3 Hedgehog

i Suitable habitat for hedgehog was identified during the survey. There was no evidence of hedgehog on Site, however, there was some potential for foraging and commuting in the form of dense continuous scrub and tall ruderal habitat.

ii Given the suitability of parts of the Site for hedgehog, it is considered possible that other notable / protected mammals such as badger and brown hare are utilising the site for foraging. As such precautionary measures are recommended to reduce the risk of impacting hedgehog, or any other mammals during the works.

iii during construction it is recommended that best practice is followed in respects to hedgehog and any other mammals (i.e. brown hare and badger) which may be present locally. This should include:

- Mammal ladders (such as a plank) or earth ramps to be placed in any open excavations at the end of each day;
- Cap off any open pipes at the end of each day;
- Cover any open holes, or install mammal ladders or earth ramps in any open excavations at the end of each day to prevent animals from becoming trapped;
- Keep all fuel and other harmful substances in a locked area;
- Ensure any spillages are treated with spill kits;
- If any fresh sett digging is observed notify an ecologist immediately and leave a 20m buffer around the area until an assessment can be made.

5 MITIGATION AND COMPENSATION RECOMMENDATIONS (BATS)

5.1 Mitigation

3.2.1 Site Supervision and Training

I Before works commence on site, all site workers should be inducted by the ecologist on site. This would include training on identification of bats and their roost requirements as well as appropriate working methods and behaviours . In the unlikely event that a bat is found within building 1, all works must cease and a license be obtained from Natural England.

3.2.1 Timing

ii As no roosting bats were recorded, there are no timing constraints when works can take place. However, if possible the ideal time to undertake any demolition works would be the period September to early November, outside of the nesting bird season and the bat hibernation season.

3.2.1 Lighting

iii Artificial lighting can affect the way that bats use habitats in a number of ways, depending on the species and proximity to a roost. Direct bright lighting of a roost can cause bats to delay emergence from a roost and could even cause them to desert the roost (BCT and ILE, 2008). The prey items for British bats are flying insects, and many flying insects are attracted to certain types of artificial light sources, especially those that emit light with an ultraviolet component (BCT and ILE, 2008; Rydell, 2006). Some species of bat recorded within the Site are known to be attracted to insects gathered around light sources (such as pipistrelle and noctule), whereas others actively avoid lit areas (such as Myotis species and long-eared bats) (BCT and ILE, 2008; Rydell, 2006). Lighting within the Site could therefore be expected to affect the ways that the bats in the area are able to use the Site. It is also possible that artificial lighting within the Site could attract insects to the lit areas from outside the Site, acting as a sink for insect activity and potentially resulting in the adjacent areas supporting lower numbers of insects and therefore a reduced availability of food for bats within these areas.

iv Lighting should be carefully designed adjacent to existing (and potentially new) foraging areas. Where artificial lighting cannot be avoided the lighting scheme should be designed with reference to the Bat Conservation Trust and Institute of Lighting Professionals Guidance 5,6,7 and should be designed to reduce light spill and be downwardly directional. All new lighting will meet the current environmental standards of good practice in order to reduce potential light pollution and will use the lowest intensity for its purpose. This will minimise light spill onto foraging routes and minimise potential disturbance to dark corridors.

5.2 Compensation

I As the site supports commuting and foraging bats and buildings with potential roosting features are being lost, it is recommended that compensatory bat boxes are utilised within the proposals. Integrated bat bricks/bat boxes are recommended within newly created buildings. The habitat bat brick or the Ecoserve bat cavity brick allow the contractor to render / face the box with any brick/ blockwork to blend into the building. It retains a self-cleaning, self-contained roost unit away from the proposed development. These should be installed on a south or south-western facing extent for additional warmth.

ii To further enhance the suitability of the site it is anticipated new garden spaces including hedgerows and trees will be included within any final landscape designs. These should be orientated to be of maximum

benefit to the new roosts by creating flight lines to the buildings whilst also avoid overgrowing any entrance holes to the proposed bat boxes.

6 ENHANCEMENT RECOMMENDATIONS

i The NPPF encourages biodiversity enhancements through the planning process. Sites such as this can easily and cost effectively achieve localised enhancements through inclusion of a range of nest boxes for birds and bats. As a minimum it is recommended the site include up to two nest boxes suited to small garden bird species to compensate for the loss of nesting habitats present on site.

ii The existing grassland is an area of poor semi - improved grassland that could be enhanced through the addition of further wildflower species with local provenance, particularly those that are utilised by local lepidoptera species. Enhancing these grassland areas by creating wildflower meadows will also provide a broad variety of food sources for a diverse range of invertebrates, including pollinators, in turn providing an ample food source for insectivores, such as bats and hedgehogs.

iii Where new landscape planting is proposed species commonly occurring such as oak (*Quercus robur)*, silver birch (*Betula pendula)* and wild cherry (*Prunus avium)* are suggested. Ash and elm should be avoided at present due to Dutch elm disease and ash die back as stocks of these trees cannot be ensured to be free from this disease. Rowan (*Sorbus aucuparia)* is recommended at this provides berries for local fauna species.

iv Hedgerows are also a simple way to improve the ecological value of a site. The site boundaries may include planting of hedges inclusive of species such as field maple (*Acer campestre),* blackthorn (*Prunus spinose)*, elder (*sambucus nigra*) and Holly (*Ilex aquifolium*). Under planting of these hedgerows with species such as honey suckle (*Lonicera periclymenum*) and bramble (*rubrus fruticosus*).

7 REFERENCES

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8 APPENDIX 1: LEGISLATION AND PLANNING POLICY

8.1 General & Regionally Specific Policies

i Articles of British legislation, policy guidance and both Local Biodiversity Action Plans (BAPs) and the NERC Act, 2006 are referred to throughout this report. Their context and application is explained in the relevant sections of this report. The relevant articles of legislation are:

1) The National Planning Policy Framework (2019)
2) ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2019)
3) Local planning policies (Sefton Council)
4) The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
5) The Wildlife and Countryside Act 1981 (as amended);
6) EC Council Directive on the Conservation of Wild Birds 79/409/EEC;
7) National Parks and Access to the Countryside Act 1949;
8) The Protection of Badgers Act 1992;
9) The Countryside and Rights of Way Act 2000;
10) The Hedgerow Regulations 1997;
11) The Natural Environment and Rural Communities (NERC) Act 2006;
12) Local Biodiversity Action Plan for North Merseyside

8.2 Bats

i British bats are fully protected within UK Law under *Wildlife and Countryside Act 1981* (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:

Intentional or reckless killing, injury, taking;
Damage to or destruction of or, obstruction of access to any place of shelter, breeding or rest;
Disturbance of an animal occupying a structure or place;
Possession or control (live or dead animals);
Selling, bartering or exchange of these species, or parts of.

ii This law is reinforced by the UK's transposition of the EU Habitats Regulations under *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations* 2019. These Regulations also prohibit:

the deliberate killing, injuring or taking of great crested newt or bats;
the deliberate disturbance of any great crested newt or bat species in such a way as to be significantly likely to affect:
their ability to survive, hibernate, migrate, breed, or rear or nurture their young; or
the local distribution or abundance of that species.
damage or destruction of a breeding site or resting place;
the possession or transport of great crested newt or bats or any other part of.

iii Under certain circumstances a licence may be granted by Natural England to permit activities that would otherwise constitute an offence. In relation to development, a scheme must have full planning permission before a licence application can be made.

iv In addition, seven British bat species are listed as Species of Principal Importance (SPI) under the Natural Environment and Rural Communities (NERC) Act, 2006. These are barbastelle (*Barbastellus barbastellus)*, Bechstein's (*Myotis bechsteinii)*, noctule (*Nyctalus noctula)*, soprano pipistrelle (*Pipistrellus pygmaeus)*, brown long-eared (*Plecotus auritus)*, greater horseshoe (*Rhinolophus ferrumequinum)* and lesser horseshoe (*Rhinolophus hipposideros)*.

v Under the National Planning Policy Framework 2019 the presence of any protected species is a material planning consideration. The Framework states that impacts arising from development proposals must be

avoided where possible or adequately mitigated/compensated for and that opportunities for ecological enhancement should be sought.

8.3 Birds

i The Wildlife and Countryside Act 1981 (as amended) is the principle legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to recklessly or intentionally:

Kill, injure or take any wild bird;
Take, damage or destroy the nest of any wild bird while it is in use or being built;
Take or destroy the egg of any wild bird.

ii For birds listed on Schedule 1 of the Act, it is an offence to disturb any bird while it is building a nest, is at or near a nest with young; or disturb the dependant young of such a bird.

iii Species listed in Annex 1 of the EU Birds Directive 1994 (e.g. barn owl) are required to have special conservation measures taken to preserve their habitats and sites to be classified as Special Protection Areas (SPAs) where appropriate.

9 APPENDIX 2: METHODLOGY

9.1 Desk Study

3.2.1 Background Records Search

i The preliminary ecological assessment includes a desk study to obtain background records relevant to a Site and the Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible.

ii The Study Area is dependent upon the nature, timing and scale of the Scheme, as well as the location of the Site and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (ZoI) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.

iii On 22nd March 2023 the Merseyside BioBank was contacted to obtain the following ecological data:

Records of non-statutory designated sites within 500m of the Site boundary;

Records of legally protected and notable species (fauna and flora) within 500m of the Site boundary, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 in the England Biodiversity List.[6]

iv The Multi-Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk) website was reviewed for the following information:

v Designated sites of nature conservation importance (statutory sites only) within 500m of the Site. This was extended to 1km for internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs); and,

iv Notable habitats within 500m of the Site, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List.

9.2 Field Survey

i The preliminary ecological assessment includes a walkover survey of the Survey Area, broadly following the Phase 1 habitat survey methodology as set out in Joint Nature Conservation Committee guidance (Joint Nature Conservation Committee, 2010). This survey method records information on habitat types and is 'extended' to record any evidence of and potential for protected or notable species to be present. Plant names recorded during the survey follow (Stace, 2019).

ii During the walkover survey, the following protected or notable species are considered:

[6] Section 40 of the Natural Environment & Rural Communities Act 2006 requires that very public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. The Secretary of State has drawn up, in accordance with Section 41 of the Act and in consultation with Natural England, a list of habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

Badger: the survey involves searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in (Scottish Natural Heritage, 2018) and (Harris, 1989).

Bats: the survey involves searching for potential roosting sites for bats within trees and structures (such as buildings, bridges or underground features such as mines) and categorising the potential of those trees or structures to support roosting bats (negligible to high, or confirmed roost), in accordance with Bat Conservation Trust (BCT) (Collins, J. (Eds.), 2016) guidance.

Birds: the survey involves assessing the potential of habitats within the Survey Area to support breeding, wintering or migrating birds, either individually notable species or assemblages of both common and rarer species;

Great crested newt: the survey involves assessing the potential of habitats within the Survey Area to support great crested newt, following English Nature (English Nature, 2001) and Froglife (Froglife, 2001) guidance;

Reptiles: the survey involves assessing the potential of habitats within the Survey Area to support reptiles (typically adder, grass snake, common lizard and slow worm only, though in some locations and habitat types (most notably heathland) may also include smooth snake and sand lizard), following Froglife (Froglife, 1999) and JNCC ((Joint Nature Conservation Committee, 2003) guidance;

Notable species of invertebrate: the survey involves assessing the potential of habitats within the Survey Area to support notable species of invertebrates, both terrestrial and aquatic (including white-clawed crayfish);

Protected or Notable species of plants: the survey involves recording protected or notable plant species;

Other notable species: the survey involves assessing the potential of habitat within the Survey Area to support other Notable Species, such as hedgehog, brown hare, polecat or common toad;

Non-native invasive plant species: the survey involves recording evidence of the presence of invasive plants listed on (Wildlife and Countryside Act , 1981 (as amended)) and subject to strict legal control.

9.3 Limitations

i The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

ii An ecological survey represents a ‘snapshot’ in time of the ecological condition of a Site. The ecological character of a Site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats potential to support protected species.

10 APPENDIX 3: DESK STUDY DATA

i No statutory or non-statutory designated sites were recorded within the search radius.

ii Protected species records were received from Merseyside BioBank. A summary of the records considered most relevant to the site and/or proposed development are provided in the table below.

Table 5: Summary of protected and notable species records

Species	Scientific Name	Records	Conservation Status
Amphibians			
Common frog	*Rana temporaria*	4 records, closest 0.1km NE	NERC[7]
Mammals			
Common Pipistrelle	*Pipistrellus pipistrellus*	10 records, closest 0.35km SW	EPS[8], WCA(5)[9] & LBAP
Common pipistrelle roost	*Pipistrellus pipistrellus*	2 records, closest 0.35km SW	EPS, WCA(5) & LBAP
West European hedgehog	*Erinaceus europaeus*	29 records, closest 0.03km NE	WCA(5), EPS & LBAP
Eurasian red squirrel	*Sciurus vulgaris*	13 records, closest 0.25km W	EPS, WCA(5) & NERC
Eastern grey squirrel	*Sciurus carolinensis*	15 records, closest 0.26km W	
European water vole	*Arvicola amphibius*	2 records, closest 0.73km NW	EPS, WCA(5) & NERC
Birds			
House sparrow	*Passer domesticus*	1 record, 0.67km S	BoCCRed[10], WCA (5) & LBAP
Invertebrates			
Polydrusus formosus	*Polydrusus formosus*	1 record, 0.62km E	WCA (5)
Invasive Plants			

7 Natural Environment Rural Communities Act (2006) Species of Principal Conservation Importance;
8 European Protected Species (EPS), protected by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019
9 The Wildlife and Countryside Act 1981
10 BoCCRed – Birds of Conservation Concern Category: Red (High Concern)

Species	Scientific Name	Records	Conservation Status
Japanese knotweed	*Fallopia japonica*	1 record, closest 0.29km NW	
Rhododendron ponticum	*Rhododendron ponticum*	1 record, closest 0.29km NW	

iii Full species records are available to view upon request.

11 APPENDIX 4: BAT ROOST ASSESMENT RESULTS

Table 6: Bat Building Assessment Results

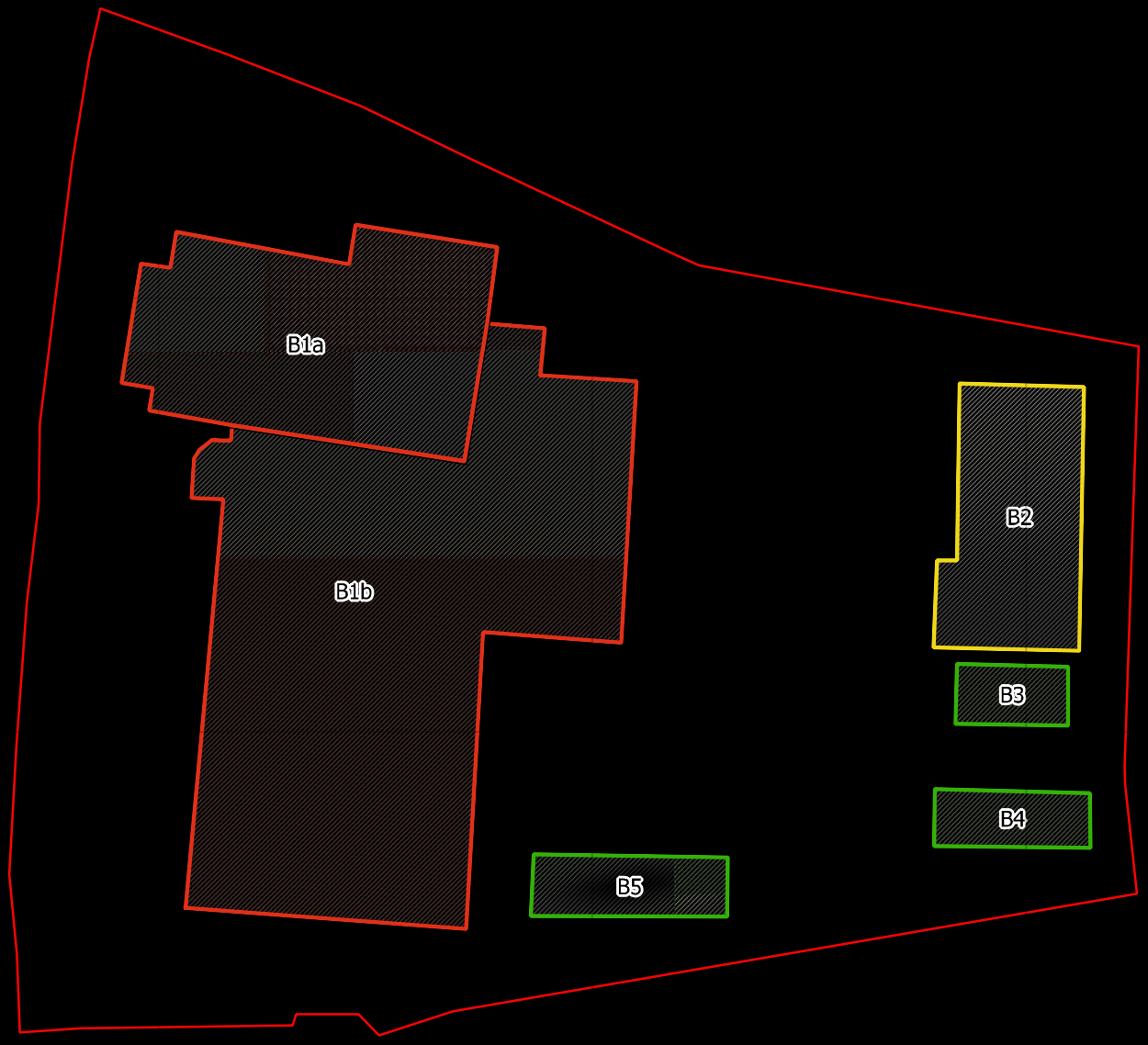
Feature	Description	Location	Grading	Photographs
Building B1a	Two storey brick-built building with pitched roof. There was a chimney and church spire situated on the roof of t building and several gables were present. Gaps were present at either end of th wooden gable on the southern side. Several gaps in mortar were present between bricks at the front of the building and lifted and loose tiles were located along the roof. During the internal inspection a number of holes were located on the ceiling leading to the roof cavity.	Northwest corner of Site	High	  

ECOLOGY

Feature	Description	Location	Grading	Photographs
Building B1b	Single storey building, single layer bricked with pebble dash rendering and double glazed windows. Brickwork was in a good state of repair and several pvc boxes were apparent on the building starting to rot. A large hole was located on the eastern side of the building and several gaps in the mortar were present. Holes in the ceiling, a single large gap leading into the loft and gaps between timber beams were located internally.	Western section of Site	High	  

Feature	Description	Location	Grading	Photographs
Building B2	Single storey red brick building with corrugated covering and a pitched roof. several open doors and smashed windows are present. Areas of broken wood panels are present internally. No evidence of bats was recorded internally or externally.	Northeastern section of Site	Low	 
Building B3	Single storey building with a corrugated roof.	Eastern section of Site, to the south of B2	Negligible	

Feature	Description	Location	Grading	Photographs
Building B4	Single storey building with a corrugated roof.	Eastern section of Site, to the south of B3	Negligible	
Building B5	Single storey outhouse building	Southern section of Site	Negligible	



Key

- Site Boundary
- High bat roost potential building
- Low bat roost potential building
- Negligible bat roost potential building
- Survey 2 - Positions
- Common Pipistrelle
- Survey 2 - Flight Arrows

10 Heard Not Seen Common Pipistrelle

RammSanderson

Title: Bat Nocturnal Results - Survey 2 - 13.06.2023

Project: Maghull Methodist Church, Liverpool

Client: DB3 Architecture

Date: 01/09/2023 Fig:04 Author: RD

A4 Scale: 1:400 ID: RSE_6895a_BNR2_0923_V1R1


Key
Site Boundary
High bat roost potential building
Low bat roost potential building
Negligible bat roost potential building
Survey 3 - Positions
Common Pipistrelle
Survey 3 - Flight Arrows
8 Heard Not Seen Common Pipistrelle
B1a
B1b
B2
B3
B4
B5
RammSanderson
Title: Bat Nocturnal Results - Survey 3 - 13.07.2023
Project: Maghull Methodist Church, Liverpool
Client: DB3 Architecture
Date: 01/09/2023
Fig: 05
Author: RD
A4 Scale: 1:400
ID: RSE_6895a_BNR3_0923_V1R1


Key
Site Boundary
High bat roost potential building
Low bat roost potential building
Negligible bat roost potential building
Survey 1 - Positions
Common Pipistrelle
Survey 1 - Flight Arrows
17 Heard Not Seen Common Pipistrelle
1 Heard Not Seen Noctule
B1a
B1b
B2
B3
B4
B5
RammSanderson
Title: Bat Nocturnal Results - Survey 1 - 01.08.2023
Project: Maghull Methodist Church, Liverpool
Client: DB3 Architecture
Date: 01/09/2023
Fig: 06
Author: RD
A4 Scale: 1:400
ID: RSE_6895a_BNR1_0923_V1R1