CAMDEN GOOD YARD, CAMDEN, GREATER LONDON

PRELIMINARY BAT ROOST ASSESSMENT

A Report to: St. Georges PLC

Report No: RT-MME-154347

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

Report Version	Date	Completed by:	Checked by:	Approved by:
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The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 12 months from the date of survey. If works have not commenced by this date, it may be necessary to undertake an updated survey to allow any changes in the status of bats on site to be assessed, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

In February 2021, St. Georges PLC commissioned Middlemarch Environmental Ltd to undertake a Preliminary Bat Roost Assessment at Camden Goods Yard in Camden. This assessment is required to inform a planning application associated with demolition of existing building on site and construction of 71 residential units.

To fulfil the above brief to assess the potential for the existing buildings on site to support roosting bats, a Preliminary Bat Roost Assessment was undertaken on 18th February 2021.

During the assessment of the Supermarket there were no features of potential interest to roosting bats. A detailed external and internal review of all of the building was undertaken on site, including the features described above, and no evidence of bats was recorded. Taking into account the structural characteristics and the lack of features and the immediate surrounding urban habitat, it is deemed that the Morrison's Supermarket has negligible potential for roosting bats. Due to the lack of evidence it can be concluded that the Preliminary Roost Assessment has ruled out the reasonable likelihood of a bat roost being present.

Following the results of the Preliminary Bat Roost Assessment, the following recommendations have been made:

R1 Morrison's Supermarket.

Morrison's Supermarket was fully inspected, and no bats were identified. The building had negligible potential for roosting bats. The survey data obtained for the site is valid for 12 months from the survey date. If development works to the surveyed structure have not commenced within this timeframe it will be essential to update the survey effort to establish if bats have colonised the structures in the interim.

In the unlikely event that a bat is found during demolition works all works must immediately cease and a suitably qualified ecologist should be contacted.

R2 Lighting

Due to the low-moderate foraging and roosting habitat located immediately to the south of the site precautionary measures for lighting have been recommended. In line with paragraph 125 of the National Planning Policy Framework, the development should aim to limit the impact of light pollution on bats through the careful use of lighting in critical areas such as in areas close to the Grand Union Canal to the south of the site and at a low level with minimum spillage (Gunnell, 2012).

R3 Habitat Enhancement

In line with the National Planning Policy Framework, the development should aim to enhance the site for bats. Bat boxes should be installed to provide roosting habitat for species such as pipistrelle. In general, bats seek warm places and for this reason boxes should be located where they will receive full/partial sun, although installing boxes in a variety of orientations will provide a range of climatic conditions. Position boxes at least 4 m above ground to prevent disturbance from people and/or predators. The planting of species which attract night flying insects is encouraged as this will be of value to foraging bats, for example: evening primrose, goldenrod, honeysuckle and fleabane.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In February 2021, St. Georges PLC commissioned Middlemarch Environmental Ltd to undertake a Preliminary Bat Roost Assessment at Camden Goods Yard in Camden. This assessment is required to inform a planning application associated with demolition of existing building on site and construction of 71 residential units.

In addition, Middlemarch Environmental Ltd has been commissioned to undertake the following assessments:

- Preliminary Ecological Appraisal (Report RT-MME-122085-01 Rev C);
- Preliminary Bat Roost Assessment (Report RT-MME-122085-02 Rev C):
- Pre-development Arboricultural Survey (report RT-MME-122107-01 Rev E); and,
- Arboricultural Impact Assessment (report RT-MME-122107-02 Rev B).

To fulfil the above brief to assess the potential for the existing building on site to support roosting bats, a Preliminary Bat Roost Assessment was undertaken on 18th February 2021.

All UK bat species are European protected species and they are capable of being material considerations in the planning process. A summary of the legislation protecting bats is included within Appendix 1. This section also provides some brief information on the ecology of British bat species.

1.2 SITE DESCRIPTION AND CONTEXT

The site is located off Chalk Farm Road in the London Borough of Camden, centred at National Grid Reference TQ 2843 8414. It is irregular in shape and measures approximately 3 ha in size.

At the time of the survey, the site comprised of a Morrison's supermarket with an associated hardstanding access road, loading bay, parking area and forecourt. Introduced shrub beds were located within the supermarket car park whilst areas of amenity grassland were present around the peripheries of the site.

The site was bordered by railway tracks to the north-east and south-west, residential properties to the south-east, and an access road to the north-west. The wider landscape is dominated by an urban setting consisting of residential dwellings and retail/industrial units interspersed with school grounds, emergency services buildings and many places of worship. The Regent's Canal is located 60 m to the south-east at its nearest point and Regent's Park is located approximately 500 m to the south.

2. METHODOLOGY

2.1 Desk Study

The desk study included a search for statutory nature conservation sites designated for bats within a 10 km radius of the site. The consultee for this desk study was Natural England - *MAGIC* website for statutory conservation sites.

2.2 FIELD SURVEY

In line with the specifications detailed in Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), a Preliminary Bat Roost Assessment of the building was conducted during daylight hours. A visual assessment was undertaken to determine the presence of any Potential Roost Features (PRFs), together with a general appraisal of the suitability of the site for foraging and commuting. Table 2.1 provides examples of PRFs. Any accessible PRFs were inspected using binoculars, a torch and endoscope for evidence of possible bat presence. Building was surveyed externally and internally.

Based on the PRF's present, the survey area was assessed using the suitability classes detailed within Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016), as detailed in Table 2.2.

Example of Potential Roost Features

Externally

- Access through window panes, doors and walls;
- behind peeling paintwork or lifted rendering;
- behind hanging tiles;
- weatherboarding;
- eaves:
- soffit boxes;
- fascias;
- lead flashing;
- gaps under felt (even including those of flat roofs);
- under tiles/slates;
- · existing bat and bird boxes; and
- any gaps in brickwork or stonework permitting access into access to cavity- or rubble-filled walls.

Internally

- behind wooden panelling;
- in lintels above doors and windows;
- behind window shutters and curtains;
- behind pictures, posters, furniture, peeling paintwork;
- peeling wallpaper, lifted plaster and boarded-up windows;
- inside cupboards and in chimneys accessible from fireplaces.
- within attic voids:
- the top of gable end or dividing walls;
- the top of chimney breasts;
- ridge and hip beams and other roof beams;
- mortise and tenon joints;
- all beams (free-hanging bats);
- the junction of roof timbers, especially where ridge and hip beams meet;
- behind purlins;
- between tiles and the roof lining; and
- · under flat felt roofs.

Table 2.1: Potential Roost Features (Adapted from Collins, 2016)

Suitability	Description	
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	
Negligible	Negligible habitat features on site likely to be used by roosting bats.	

Table 2.2: Classification of Structures with Bat Potential (Adapted from Collins, 2016)

3. DESK STUDY

3.1 STATUTORY NATURE CONSERVATION SITES

The site is not located within 10 km of any statutory nature conservation sites designated for the presence of bats.

4. SURVEY RESULTS

4.1 INTRODUCTION

The Preliminary Bat Roost Assessment was conducted on 18th February 2021 by Margarita Smoldareva (Ecological Consultant).

Weather conditions were recorded and are presented in Table 4.1.

Parameter	Conditions
Temperature (°C)	10
Cloud Cover (%)	70
Precipitation	Nil
Wind Speed (Beaufort)	F1

Table 4.1: Weather Conditions During the Preliminary Bat Roost Assessment

4.2 CONSTRAINTS

No constraints experienced during this survey.

4.3 SURVEY RESULTS

4.3.1 Morrison's Supermarket

External Assessment

The Morrison's supermarket building was a single storey, flat roofed building. At the entrance to the structure, on the northern aspect there was a pitched roof. It was constructed from brick and cement with a corrugated material and metal structure overhanging the walkway surrounding the north-east aspect of the brick structure. There were large glass windows located on the northern aspect of the building. The building was no longer in use as a supermarket at the time of the survey. The exterior of the building was well maintained and in good condition as shown in Plate 4.1 and 4.2. There was no observed notable vegetation growth on the building.



Plate 4.1 Exterior of Morrison's Supermarket (Pitched Roof)



Plate 4.2 Exterior of Morrison's Supermarket (Eastern Aspect)

The majority of the roof of the supermarket building was flat with three pitched roof sections (Plate 4.3 and Plate 4.5). The roof was thoroughly inspected on the day of the survey and no gaps or potential access points for bats was recorded Plate 4.3. Additionally, the netting prevents access into the any gaps located into the building by bats, as shown in Plate 4.6.

In summary, there was no evidence of bat activity (e.g. droppings, scratch marks, urine staining, feeding remains or bats) identified during the entire external inspection of the building.



Plate 4.3 Pitched Roof Section (Northern Elevation)



Plate 4.5 Pitched Roof Section (South-East Elevation)



Plate 4.4 Roof Top Overview



Plate 4.6 Netting Located from the Roof out to the Edge of the Overhang

Internal Assessment

Internal spaces of the building consisted of a large area which was previously used as a supermarket and during the survey was undergoing preparation for demolition. There were also corridors and various size rooms for office use and storage. These internal areas had intact floors, walls and ceiling as shown in Plate 4.7, 4.8 and 4.9. There were no loft voids within the building.



Plate 4.7 Building Interior



Plate 4.8 Building Interior



Plate 4.9 Building Interior

No evidence of bats, e.g. droppings, urine staining, feeding remains or scratch marks, was recorded during the internal inspection of the building and all areas of the loft could be fully surveyed.

4.4 SITE AND SURROUNDING HABITATS

The habitat surrounding the Morrison's supermarket and petrol station is predominantly hardstanding interspersed with areas of introduced shrubs and amenity grassland. The site is set within a commercial/industrial setting with Camden High Street located to the north-east of the site. There are industrial buildings located along the Regents Canal locks to the south-east of the site. Train lines were located to the south-west of the Supermarket study area and between the Supermarket study area and the Petrol Station study area. To the west of the study area there were residential and industrial buildings.

Habitats within 1 km of the site suitable for roosting, commuting and foraging include:

- · Residential houses and associated gardens;
- Running and standing water bodies; and,
- · Railway lines with vegetated banks.

The site is located approximately 50 m north of the Regents Canal, which provides good habitat for foraging and roosting bats. Primrose Hill Park is also located 500 m south-west of the site and Regents Park 500 m south of the site which also provides suitable roosting, foraging and commuting habitat.

There is connectivity between the areas described but the roads and hardstanding will restrict the movement of bats. Furthermore, the site and the immediate surroundings are subject to street lighting and moderate levels of traffic movement which may deter these species. In general, the surrounding environment has low-moderate value for bats. The buildings have been deemed as having negligible potential for roosting bats.

5. DISCUSSION AND CONCLUSIONS

5.1 SUMMARY OF PROPOSALS

Proposals involve the redevelopment of the site, including the replacement of the existing supermarket within a development of residential homes.

5.2 ASSESSMENT OF BUILDING

A detailed external and internal review of all the building was undertaken on site and no evidence of bats was recorded. Considering the structural characteristics and the lack of features and the immediate surrounding urban habitat, it is deemed that the Morrison's Supermarket has negligible potential for roosting bats. Due to the lack of evidence, it can be concluded that the Preliminary Roost Assessment has ruled out the reasonable likelihood of a bat roost being present.

5.3 POTENTIAL IMPACTS ON BATS

The site is dominated by buildings and associated hardstanding which are relatively poor for bats although insect prey may be present in low numbers. However, 60 m south of the site is the Grand Union Canal which provides foraging and roosting habitat for bats. Further suitable habitat for foraging and commuting bats is located to the south and south-west of the site, towards Primrose Hill and Regents Park. There is connectivity to the Grand Union Canal from the site due to its locality. However, the connectivity to Primrose Hill and Regents Park will be limited somewhat by high levels of street lighting, roads and the immediate surrounding habitat in an urbanised context. Overall, the potential for bats being present foraging and commuting within the site boundary is determined as low-moderate.

6. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

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REFERENCES AND BIBLIOGRAPHY

- Altringham, J (2003). British Bats. New Naturalist. HarperCollins.
- BSI. (2015). BS8596:2015 Surveying for bats in trees and woodland. British Standard Institution, London.
- Collins, J. (ed). (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Gunnell, K., Grant, G. and Williams, C. (2012) Landscape and urban design for bats and biodiversity. Bat Conservation Trust.
- Joint Nature Conservation Committee (2012). *UK Post-2010 Biodiversity Framework*. Available: http://jncc.defra.gov.uk/pdf/UK Post2010 Bio-Fwork.pdf
- Jones, K and Walsh, A (2006). A Guide to British Bats. The Mammal Society, London.
- Middlemarch Environmental (2016) *Preliminary Ecological Assessment: Camden Goods Yard, Camden, Greater London.* RT-MME-122085-01. Last revised June 2017, Rev C.
- Middlemarch Environmental (2016) Preliminary Bat Roost Assessment: Camden Goods Yard, Camden, Greater London. RT-MME-122085-02. Last revised June 2017, Rev C.
- Middlemarch Environmental (2016) *Pre-development Arboricultural Survey: Camden Goods Yard, Camden, Greater London.* RT-MME-122107-01. Last revised June 2017, Rev E.
- Middlemarch Environmental (2016) *Arboricultural Impact Assessment, Camden Goods Yard, Camden, Greater London.* RT-MME-122107-02. Last revised June 2017, Rev B.
- Miles, J., Ferguson, J., Smith, N. and Fox, H. (2018) *Bats and artificial lighting in the UK. Bats and the Built Environment Series*. Bat Conservation Trust and Institution of Lighting Professionals.
- Ministry of Housing, Communities and Local Government (2019) *National Planning Policy Framework*. Available: https://www.gov.uk/government/collections/revised-national-planning-policy-framework
- Mitchell-Jones, A.J. & McLeish, A.P. (2004). The Bat Workers' Manual (3nd Ed.). JNCC, Peterborough.

The Conservation of Habitats and Species Regulations 2017.

APPENDIX 1

LEGISLATION

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- · deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species while it is occupying a structure or place which it uses for shelter or protection.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*.

The reader should refer to the original legislation for the definitive interpretation.

^{*}Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

ECOLOGY

At present, 18 species of bats are known to live within the United Kingdom, of which 17 species are confirmed as breeding. All UK bat species are classed as insectivorous, feeding on a variety of invertebrates including midges, mosquitoes, lacewings, moths, beetles and small spiders.

Bats will roost within a variety of different roosting locations, included houses, farm buildings, churches, bridges, walls, trees, culverts, caves and tunnels. At different times of the year the bats roosting requirements alter and they can have different roosting locations for maternity roosts, mating roosts and hibernation roosts. Certain bat species will also change roosts throughout the bat activity season with the bat colony using the site to roost for a few days, abandoning the roost and then returning a few days or weeks later. This change can be for a variety of reasons including climatic conditions and prey availability. Bats are known live for several years and if the climatic conditions are unfavourable at a particular roost, they may abandon it for a number of years, before returning when conditions change. Due to the matriarchal nature of bat colonies, the locations of these roosts can be passed down through the generations.

Bats usually start to come out of hibernation in March and early April (weather dependent), when they start to forage and replenish the body weight lost during the hibernation period. The female bats then start to congregate together in maternity roosts prior to giving birth and a single baby is born in June or July. The female then works hard to feed her young so that they can become independent and of a sufficient weight to survive the winter before the weather gets too cold and invertebrate activity reduces. Males generally live solitary lives, or in small groups with other males, although in some species the males can be found living with the females all year. The mating season begins in the autumn. During the winter bats hibernate in safe locations which provide relatively constant conditions, although they may venture outside to forage on warmer winter nights.