Tyrer Ecological Consultants Ltd

Specialist in Protected Species

Refurbishment and conversion of former fire station to enable mixed use development

Report Title: Inspection & Assessment in Relation to Bats & Breeding Birds

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Executive Summary

Allied London would like to progress with submitting a revised planning and listed building consent application for the former London Road Fire Station scheme in Manchester city centre. Tyrer Ecological Consultants Ltd (who formerly operated as The Tyrer Partnership) have been involved with surveying the site since 2010, during that time ecological assessments in relation to bats and birds have been conducted, in order to provide a comprehensive understanding of the site - the historic reports feature as Appendix III. Due to a time lapse Tyrer Ecological Consultants Ltd carried out an updated daytime inspection and assessment of the building relative to bats and breeding birds during November 2019, commissioned by Allied London.

Updated proposals for the building are understood to involve conversion and refurbishment for mixed development, involving refurbishment works to the interior and external works to the building fabric.

The aim of the inspection was to initially ascertain if the building and land is of value to bats whilst an inspection for birds would be conducted in tandem; if found to be suitable for bats, or signs of use were observed, then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August. If bat/s or their roost/place of rest/shelter will be subsequently affected by the works then a European Protected Species Mitigation Licence (EPSML) would be required to proceed with the development. If evidence was found that indicated breeding birds may be affected by the proposals then recommendations would be made accordingly, species pending.

Bats: Based upon the findings of the updated bat and breeding bird survey no changes have transpired to increase or decrease the former London Road Fire Station value from its original assessment in relation to bats. Previous surveys of the building concluded that it pertained to “less than low” potential; the updated 2019 survey is consistent with the previous findings in that respect, in that the former London Road Fire Station is categorised as offering “negligible” suitability for both loft-dwelling and crevice-dwelling bat species, in accordance with current industry standard Bat Conservation Trust: Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) (2016).

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

In relation to bats no further recommendations are applicable or further surveys necessary. As generic advice it is recommended that if in the unlikely event of bats, or evidence of bats, being found then as a legal requirement work in the area of the building should stop, and a licensed bat consultant should be contacted to provide further guidance. For visual aids see page 16.

Breeding Birds: It can be concluded that there are no current implications in relation to breeding birds, notably inclusive of protected Peregrine and/or Black Redstarts; the proposals will not impact upon either protected species, though it should be noted both species can be found within Manchester city centre, and containing a wide array of sheltered towers, ledges and berms the building offers breeding/nesting suitability, in the absence of current disturbance levels. The building also has the potential to support other more common bird species associated with Manchester city centre such as gulls and pigeons, for example.

If any nesting birds are identified at any stage of the work schedule, the applicant should be aware that breeding birds are protected at the nest - reckless or intently disturbing the birds would constitute an offence being committed and works should be moved or timed away from the nest until the birds have moved on/chicks successfully fledged.

Biodiversity Net-Gain: Provisions to aid roosting bats can be incorporated into any new development, frequently helping to improve distribution by providing new roost opportunities in villages, towns and cities.

In addition, enhancement measures for Black Redstart and Peregrine may be considered to help the scheme achieve a biodiversity net-gain, in line with planning policy and current ecological issues. For ideas see Appendix II.

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1.0 Introduction & Reason for Survey

1.1 Allied London would like to progress with submitting a revised planning and listed building consent application for the former London Road Fire Station scheme in Manchester city centre (see Figure 1). Tyrer Ecological Consultants Ltd (who formerly operated as The Tyrer Partnership) have been involved with surveying the site since 2010, during that time ecological assessments in relation to bats and birds have been carried out, building a comprehensive understanding of the site - the historic reports feature as Appendix III. Due to a time lapse Tyrer Ecological Consultants Ltd carried out an updated daytime inspection and assessment of the building relative to bats and breeding birds during November 2019, commissioned by Allied London.



Figure 1 - *Survey site boundary, indicative (sourced from Google 2019)*

1.2 Updated proposals are understood to involve conversion and refurbishment for mixed development; involving extensive works to the interior and external fabric (see Figure 2).

1.3 As part of the local authority's planning policies, ecological surveys are generally required prior to planning permission being granted, particularly where a protected species is or may be present that could be affected by the proposals for which the application seeks consent. If additional surveys are required following the initial site visit the report will outline the details of those further requirements.

1.4 The aim of the inspection was to initially ascertain if the building and land is of value to bats whilst an inspection for birds would also be carried out; if found to be suitable for bats, or signs of use were observed, then more detailed surveys would be recommended i.e. dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August. If bat/s or their roost/place of rest/shelter will be subsequently affected by the works then a European Protected Species Mitigation Licence (EPSML) would be required to proceed with the development.

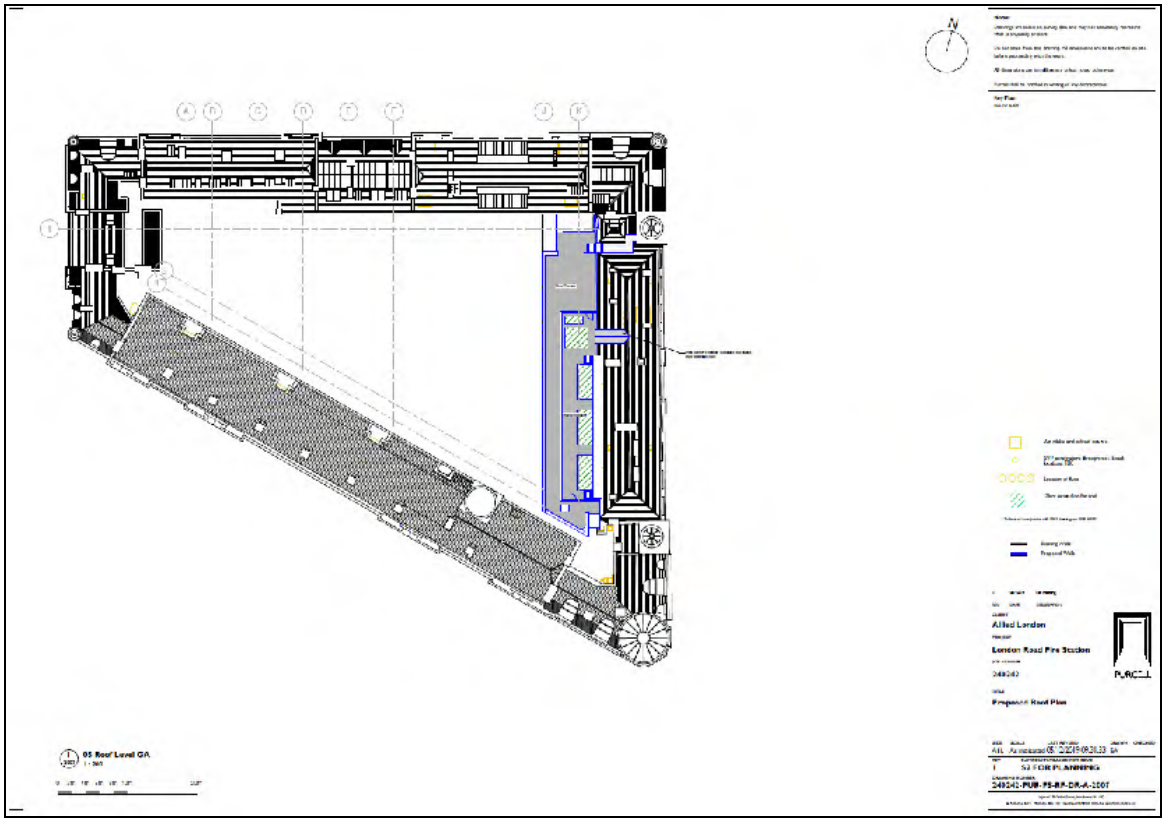


Figure 2 - *Proposed roof plan*

1.4 If evidence was found that indicated breeding birds may be affected by the proposals then recommendations would be made accordingly, species pending.

1.5 The optimum time to investigate buildings for evidence of a bat roost is May – September, however that is not to say they cannot be inspected and assessed outside of that time and frequently the results can be conclusive, which can save time and expense for planning applicants but it should be borne in mind that equally the inspection can be inconclusive.

1.6 In accordance with paragraph 175 of the National Planning Policy Framework (NPPF), *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019), measures have been recommended proportionate to anticipated impacts/net loss to ensure that the proposed development results in a biodiversity net gain.

2.0 Protected Species & Their Requirements

2.1 All British bats and their ******roosts are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2017. When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2017 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 The National Planning Policy Framework (NPPF) has replaced the Planning Policy Guidelines (PPG's). In relation to wildlife, PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF, in relation to species and habitats, are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development. The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation.

2.3 This is supported by a guide to good practice entitled 'Planning for Biodiversity and Geological Conservation: Building in Biodiversity' in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments to benefit these species.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying principle 175(a), as extracted from the NPPF.

"*If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused*".

2.4 Use of Buildings by Bats

a) Summer breeding roost
b) Hibernation roost
c) Transitional or temporary roost

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

****** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats & Species Regulations 2017 (Regulation 43 (d) the term roost is not used but refers to "*a breeding site or resting place of such an animal"* and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

2.5 All wild birds no matter how common, their eggs, young and nests whilst being built or occupied are protected under both the Wildlife and Countryside Act (1981) and Natural Environment and Rural Communities Act (NERC Act 2006). Any work that would damage an occupied nest, eggs or young of breeding birds must be avoided and any damage to nests that may occur as a result of the development should be outside of the main breeding bird season (March-August) as long as it can be conclusively established by a suitably experienced ecologist that the nest/s is/are no longer in use. On occasions nests can become unoccupied during the main breeding season but the status of the nest/s should be determined by a suitably experienced ecologist before any damage takes place.

2.6 Guidance for Local Authorities: Extract from Office of the Deputy Prime Minster: Circular 06/2005:

"*It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision."*

3.0 Protected Species in Greater Manchester

3.1 Up to ten bat species have been recorded in Greater Manchester, most of which use built structures notably occupied residential properties for roosting. The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Greater Manchester is reflected throughout the UK.

3.2 All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected under the Wildlife & Countryside Act 1981 (as amended) but some species such as those listed on Schedule 1 of the Act e.g. Peregrine Falcon (*Falco peregrinus*) and Black Redstart (*Phoenicurus ochruros*) are afforded a greater level of protection.

3.3 Both Peregrines and Black Redstart are Schedule 1 protected species listed on the Wildlife & Countryside Act (1981); both species are known to be resident and breed in urbanised, high rise and often derelict areas within Manchester city centre. The Peregrine is increasing in distribution due to successful conservation efforts on a national scale and improved protection through legislation, though remains an illegally persecuted raptor; contrastingly, Black Redstart is red-listed on Birds of Conservation Concern (BoCC 4) with fewer than 100 breeding pairs recorded in the UK; decline in Manchester is part-attributed to regenerative works across the city resulting in the loss of nesting sites and feeding areas, as well as wildlife-insensitive building construction. Black Redstarts have their own action plan within Greater Manchester, though both species' should be considered in planning in terms of provision of nesting opportunities and the creation of feeding areas - such as green/brown roofs (Black Redstart).

4.0 Survey Methodology

Planning Policy

4.1 In accordance with paragraph 175 of the National Planning Policy Framework (NPPF), *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019) have been adopted whereby appropriate enhancement opportunities have been recommended within the report to ensure that a "biodiversity net gain" is obtained as a key component of the development scheme.

4.2 Policy EN15 under Biodiversity & Geological Conservation of the Manchester Core Strategy 2012 to 2027 states - "*Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially valuable habitat areas where appropriate...", "Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation", "It is important to recognise that brownfield sites often contain diverse and valuable biodiversity*."

Desktop Study

4.3 Prior to a site visit a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations within 3.0km of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGIC – provided by Defra) was accessed to gather such information; this particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSML) to further inform conclusions concerning such species in the context of the study site and its proposed development.

4.4 Satellite imagery was reviewed using sources such as Google Earth (© 2019) to determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.

4.5 The UK Guidelines for Accessing and Using Biodiversity Data (CIEEM, 2016) stipulates that data searches may not be necessary in the case of *'Low impact or small-scale development (e.g. by size, extent, duration of works, magnitude or locality)'* however this should be judged on a case by case basis. It has been deemed unnecessary to conduct a data search for protected species and designated sites in the vicinity for the reasons stated. Species/habitat information relevant to the application area and its immediate environs was obtained at the time of the survey from the site visit, as well as from the desktop study.

Field Survey

4.6 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) states:

"*The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

4.7 In context with the above a diurnal inspection and assessment of the building in relation to bats and breeding birds was conducted on 18th November 2019 in dry, sunny conditions, cloud 20% (4ºC) by Mr. M. Pritchard, a protected species licenced ecologist and Qualifying CIEEM member, who is additionally an accredited agent on the Class 2 Natural England bat licence of Mrs. K. Wilding (CLS-14227). The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, the Director of Tyrer Ecological Consultants Ltd, and her assessment is consistent with that of Mr. Pritchard.

4.8 The bat and breeding bird survey was conducted in tandem; the building was inspected for potential places that may be of value to bats and to determine if evidence of use was present. The exterior walls and all other areas which will be affected by the proposed works were investigated from ground floor level, with the aid of a high powered torch and binoculars for places that are frequently used by bats as roosts or ingress points providing access into roost chambers - and investigated for evidence of breeding birds - which broadly involves a search for nest materials, presence of pellets, accumulated faeces and dead hatchlings. Particular focus was paid to ledges, berms and ad-hoc cavities given the potential presence of Peregrine and Black Redstart. The surrounding habitat was also considered in terms of general suitability for bats and birds.

4.9 All external elevations were investigated with the aid of high powered torch and close focus binoculars (where necessary), for places that can be used as a means of ingress, potential roost features, nesting places and/or places of rest for both groups.

4.10 Criteria for bat roost assessment are based upon the determinants given in the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016): (Figure 3).

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
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[a] 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[b]). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.[c]	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[a] 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).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[a] and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

[a] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
[b] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
[c] This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Figure 3 - *BCT guidelines extract*

4.11 The results, conclusions and recommendations are based on a number of factors i.e.

- Practical experience of surveyor(s)
- Knowledge of bat and bird species relevant to the site location and geographical range
- Nature of the immediate and surrounding habitat in relation to foraging and commuting opportunities
- Condition of the building
- Presence/absence of a loft space
- Presence/absence of roost potential
- Value of roost potential – if present

5.0 Constraints

5.1 The survey was conducted at a time when bats are outside of their active season and are at the beginning of the hibernation period. Although evidence of bat use at buildings may be less apparent at this time of year where natural elements has removed evidence, both bat roost potential and suitability of potential roost features can be as conclusive as the active season of bats, saving time and unnecessary delay to applicants, thus frequently the assessment can be as conclusive as within the active season.

5.2 Additionally both Peregrine and Black Redstart as well as a range of other birds which commonly rely upon buildings and structures such as House Sparrows (*Passer domesticus*), Swallows (*Hirundo rustica*), Swift (*Apus apus*) and House Martin (*Delichon urbicum*) are typically outside of their breeding season; as such their presence and/or nesting behaviour is unlikely to be recorded in November. However, where buildings have been used historically, or a building is suitable then evidence is likely to be present (i.e. - old nest material, prey items, feathers, dead animals).

5.3 There are a number of loft spaces in the building; however, due to concerns over health and safety (poor structural integrity/removed areas of flooring) several loft spaces could only be inspected via a visual assessment from the hatch opening. Externally the current presence of colour-netted scaffolding on all four outer stories to the building exterior prevents a conclusive assessment of potential roost features from the ground. However a close inspection of the building exterior was permitted from the scaffolding walkways, which could be argued, provided a more thorough assessment of the buildings specific features in this case by allowing closer inspections, particularly the areas and ledges at height, as well as the roof, areas which are normally difficult to distinguish from ground level.

5.4 Having considered the constraints in the context of the site, the anticipated impacts, previous conclusions derived and the current survey findings, there were no significant issues that would hinder the gathering of ecological information, on which to base sound conclusions and recommendations.

6.0 Desk Study Results

6.1 The former London Fire station is located within an urban, built-up environment near the heart of Manchester city centre (see Figure 4).

6.2 The immediate habitat comprises a varied range of architectural types and typical inner city infrastructure featuring a wide diversity of high rise block buildings, listed buildings, commercial ventures, hotels, apartments and office properties which are frequently intersected by illuminated minor and major roads. Green space is few and far between locally though Vimto Park is located 110 metres to the south featuring scattered parkland tree and pasture, plus the Rochdale Canal features at 170 metres north-west. Manly localised buildings have flat roofs, ledges and berms.

6.3 Immediate suitable habitat connectivity is poor with almost all semi-natural environs typically fragmented and/or interspersed by urbanisation with harsh noise and light levels, however adaptive species such as the Pipistrelle bat can still persevere, though in this instance it is still considered unlikely for bats to be in any large abundance within the locale of the former fire station. Where unfavourable habitat is present close to buildings then the percentage use of those buildings, by bats, decreases even though roost opportunities may be available.

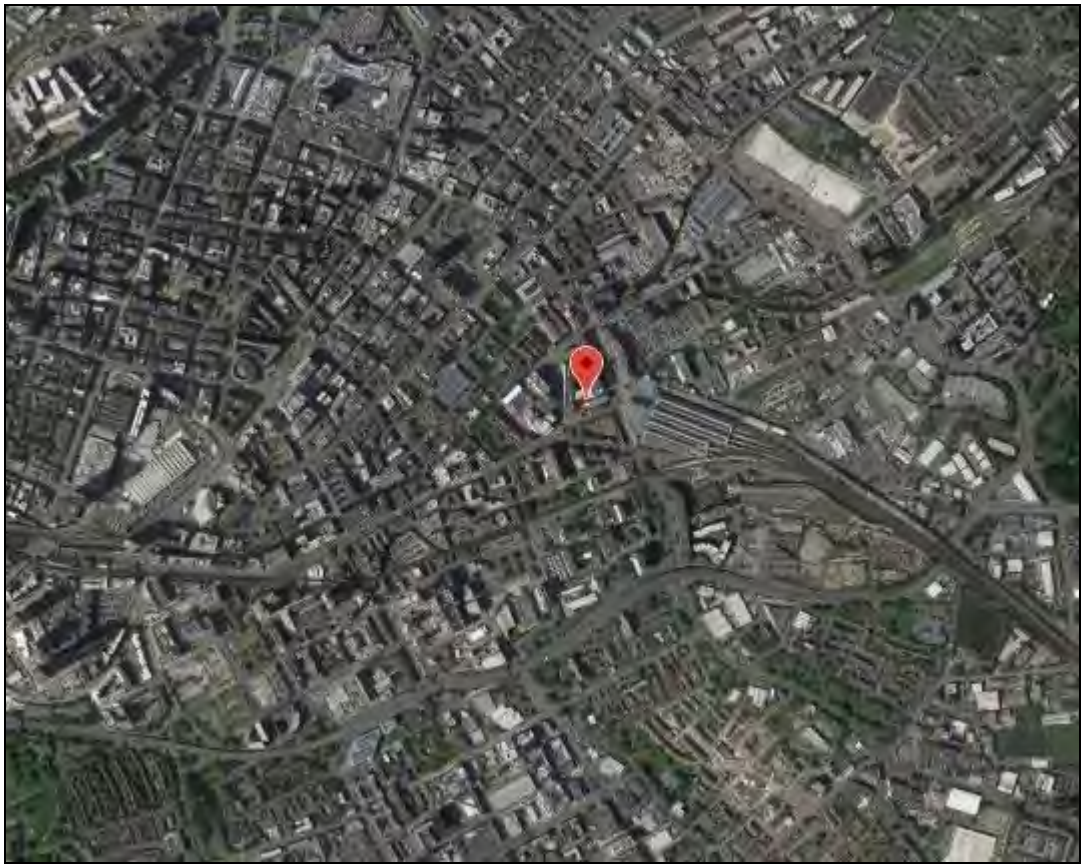


Figure 4 - *Location of the former fire station within the landscape* (Source*: Google Earth 2019*)

6.4 Peregrine Falcons were first recorded in the city of Manchester in 1993. This was a pair which bred on a derelict power station 2.0 miles from the centre; unfortunately this structure was subsequently demolished in 1994 resulting in the Peregrines unable to nest at this site for a second year. The next sighting of Peregrine activity was identified in 1999 when the birds started roosting around Manchester city tower blocks; for this reason, between the years of 2004-2006, nest boxes were installed by BTO in four locations around the city centre including the City Tower, CIS Tower, and the Town Hall Building. In 2006 a breeding pair of Peregrine Falcons successfully produced 4 eggs in one of the nest boxes which hatched in May – there were 2 males and 2 females. Since then Peregrines have continued to breed successfully within the county.

6.5 Records from 1992 to 2007 show Black Redstarts have bred or attempted to breed within central Manchester every year, with the exception of 2003. The total city population is unknown, but may be as low as 2–3 pairs. The first confirmed breeding for Greater Manchester was of a record of two fledged young from a nest in central Manchester in 1977. Outside of Manchester city centre pairs have also bred in Ashton-Under-Lyne during 1996 – 1998 and 2004.

(Extracted: *Make Room for Black Redstarts (A species action plan for Greater Manchester)*.

6.6 The nature of the immediate habitat holds no constraints for Peregrine Falcons and the abundance of Feral Pigeons provides a readily available, consistent food source. Black Redstarts are however vulnerable to loss of feeding and nesting places due to re-development.

7.0 Field Study Results

Bats

7.1 The former London Road Fire Station "the application site" is a large, four-storey, triangular-shaped, smooth, brick-building with terracotta features and a large, open-spacious, inner courtyard. The building was constructed during the early 20th century, though in recent times has been used primarily for commercial storage, and has long been redundant of its former purpose as a fire house. The topography of the roof is linear by design formed of various separate slate, hipped roofs, some of which have perspex light screening installed every so often, and have reasonably sized ornate brick and ceramic chimneys and/or semi-circular domes. Flat, drainage berms are present at the base of each hipped roof. In addition the roof features large towers notably in the east of the structure, most striking of which is the southern-most former 'Hose Tower' which exceeds 12.0 metres in height from the roof - all three towers feature a sheltered open centre, have various ledges, berms and ornate 'gargoyle caricature' features that offer niche crevice and shelter opportunities, such as gaps and ledges.

7.2 Balconies are present within the inner courtyard elevations on all four levels. In respect of aesthetic condition, the building was predominantly covered by colour-netted scaffolding during the survey, and workers were observed working on various levels both internally and at the roof, thus, it would be inaccurate to comment on the perceived state of the building, however a significant amount of refurbishment and modernisation work is evidentially required throughout all parts of the building in order to restore it into any habitable state, prevent further dilapidation and to bring the building in line with modern standards.

7.3 During the internal inspection conditions throughout the structure were cold, highly illuminated, significantly draughty and invariably compartmentalised, with the vast majority of rooms accessed featuring a range of bulky equipment, wall/floor collapse and/or other clutter. Loft spaces are noted to be present in several areas via the fourth floor, some of which provide access to further much smaller void spaces. No underfelt was noted anywhere in the structure and bare slate is exposed in all loft spaces assessed. In addition, each room of the building is/has been evidently subject to significant disturbance by current contractor/maintenance/security staff on some level.

7.4 In combination the factors described result in the interior of the building rendered as inhospitable for Brown long-eared (Plecotus auritus) bats, this a species which prefers dark, undisturbed, consistently climatic loft type conditions in which they can fly freely, emerging at dusk and returning at dawn. In addition the immediate habitat is generally considered unsuitable for the specific foraging requirements of long-eared bats for all purposes, and evidence of recent or historic use by this genus is absent during the investigation.

7.5 In respect to crevice dwelling species such as the Pipistrelle this species is generally recognised as being a more robust, urban-adaptable genus of bats, the building interior is equally unsuitable given the levels of disturbance currently, and given an absence of any roof lining below the roofing slate which further negates the likelihood of bats using the structure for safe shelter at roof level. The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony; however that is not to say that other structures are not also used for breeding and other purposes such as hibernation. No evidence of any bats was found throughout, however, absence of evidence can be attributed to the scale of the structure, levels of disturbance and, perhaps mostly, the preference for crevices bats take advantage of.

7.6 Externally the typical places of a building that are favoured by crevice-dwelling bats (typically barge/fascia/soffit boards and timber cladding) were found to be absent to all elevations. The smooth brick is in good condition and absent of missing mortar or ingress opportunities between brickwork, which is surprising given the industrial history and current levels of disturbance; in addition to this, all frames and lintels at doors/windows offer an absence of bat roost suitability. At the roof the slate is notably tight-fitting, including the ridges. Due to the absence of potential areas for bats to roost, in combination with poor bat habitat, the potential for crevice dwelling bats is further reduced.

Breeding Birds

7.7 Ongoing works to the building at roof level significantly deduce the probability of Peregrine and/or Black Redstart breeding potential and/or likely occupancy, and no evidence of either species was observed throughout the survey. Each of the towers on the roof of the building, as described, offer a covered space with low typical disturbance which could offer a means of shelter to Peregrine for breeding, most notably the highest of the three towers on the southern section (Hose Tower - see Figure 1 for indicative); other general ledges and berms at the building exterior and towers, including gaps/wedges between chimney vents, offer niche opportunities for Black Redstart nesting. In its current condition however the building is highly unlikely to be used by the named species due to the high levels of disturbance. In addition, immediate habitat for Black Redstart is considered to be poor, and this species is statistically more likely to be recorded in closer proximity, and within more favourable habitat, around the canals of Manchester city centre.

7.8 Nesting suitability exists for Gull *Laridae* species and Feral Pigeon, and historically both species are acknowledged to have used the building for breeding purposes; several of the latter species were observed roosting atop the roof of the buildings, though no evidence was found to indicate current breeding by pigeons. Anti-bird mesh was observed covering over certain balcony entrance points in the inner west of the building, preventing internal access locally.

8.0 Conclusions & Recommendations

8.1 Based upon the findings of the updated bat and breeding bird survey no changes have transpired to increase or decrease the former London Road Fire Station value from its original assessment in relation to bats. Previous surveys of the building concluded that it pertained to "less than low" potential; the updated 2019 survey is consistent with the previous findings in that respect, in that the former London Road Fire Station is categorised as offering "negligible" suitability for both loft-dwelling and crevice-dwelling bat species, in accordance with current industry standard Bat Conservation Trust: Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) (2016) (Figure 6).

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.

Figure 5 - *Bat Conservation Trust extract*

8.2 In relation to bats no further recommendations are applicable or further surveys necessary.

8.3 As generic advice it is recommended that if in the unlikely event of bats, or evidence of bats, being found then as a legal requirement work in the area of the building should stop, and a licensed bat consultant should be contacted to provide further guidance. For visual aids see Figure 6.



Figure 6 - *Evidence of bats - bat droppings (left) / Common Pipistrelle bat (right)*

8.4 It can be further be concluded that there are no current implications in relation to breeding birds, notably inclusive of protected Peregrine and/or Black Redstarts; the proposals will not impact upon either protected species, though it should be noted both species can be found within Manchester city centre, and containing an array of sheltered towers, ledges and berms the building offers nesting suitability, in the absence of current disturbance.

8.5 The building also has the potential to support other more common bird species associated with Manchester city centre such as gulls and pigeons, for example. If any nesting birds are identified at any stage of the work schedule, the applicant should be aware that breeding birds are protected at the nest - reckless or intently disturbing the birds would constitute an offence being committed and works should be moved or timed away from the nest until the birds have moved on/chicks successfully fledged.

8.6 Provisions to aid roosting bats can be incorporated into any new development, frequently helping to improve distribution by providing new roost opportunities in villages, towns and cities - recommendations are presented in Appendix II.

8.7 In addition, enhancement measures for Black Redstart and Peregrine may be considered to help the scheme achieve a biodiversity net-gain, in line with planning policy and current ecological issues. For ideas see Appendix II.

9.0 Bibliography

- **CIEEM**, 2019. *Biodiversity Net Gain: Good practice principles for development*. Available from: www.cieem.net/data/files/Publications/Biodiversity_Net_Gain_Principles.pdf

- **CIEEM**, 2016. *Guidelines for Ecological Impact Assessment in the UK and Ireland*, 2nd edition. Available from: www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf

- **CIEEM**, 2016. UK Guidelines for Accessing and Using Biodiversity Data. Available from: www.cieem.net/data/files/Publications/Guidelines_for_Accessing_and_Using_Biodiversity_Data.pdf

- **CIEEM**, 2017. *Guidelines for Preliminary Ecological Appraisal*, 2nd edition. Available from: www.cieem.net/data/files/Publications/Guidelines_for_Preliminary_Ecological_Appraisal_Jan2018_1.pdf

- **Collins, J** (ed.), 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd edition. The Bat Conservation Trust, London.

- **Communities & Local Government (C&LG)**, 2012. *National Planning Policy Framework*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

- **Magic Maps Application**, 2019. Available from: www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

Appendix I: Site Photographs



Plate 1 - Inner courtyard, standing centralised looking south



Plate 2 - Inner courtyard, looking west



Plate 3 - Inner courtyard, looking north



Plate 4 - Inner courtyard, standing on southern roof looking east





Plates 5-6 - Internal photographs, including loft spaces





Plates 7-8 – General character of the roof



Plate 9 - Nature of the roof



Plate 10 - One of the towers, north-eastern elevation



Plate 11 - Interior of the tower in Plate 11





Plates 12-13 - Niche ledge/crevice opportunities for nesting birds below varied shelter



Plate 14 - Niche ledge opportunities for birds below shelter



Plate 15 - One of the doorways in the courtyard



Plate 16 - Large ‘Hose Tower’ on the southern elevation

Appendix II: Biodiversity Net Gain: Enhancement Strategy

Green Roof/ Brown Roof

A 'Green Roof' or 'Brown Roof' can be inorporated onto flat areas of roof and can help form an important ecological mechanism in urban areas by 1) providing a vital role in helping cities/towns adapt to the effects of climate change by reducing the need for artificial cooling in hot weather, and 2) attenuating or capturing rainwater runoff, whilst 3) providing a range of habitats for urban wildlife including Black Redstart and pollinator species. Planting should always consist of native species at a low density. Substrate may include a shallow topsoil or topsoil overlaid by gravel and species most appropriate for planting within any roof area include the following:

Common Toadflax (*Linaria vulgaris*)
Common Vetch (*Vicia sativa*)
Cornflower (*Centaurea cyanus*)
Cowslip (*Primula veris*)
Hoary Plantain (*Plantago media*)
Lesser Stitchwort (*Stellaria graminea*)
Musk Mallow (*Malva moschata*)
Rough Hawk-bit (*Leontodon hispidus*)
Scarlet Pimpernel (*Anagallis arvensis*)
Selfheal (*Prunella vulgaris*)
Sheep's-bit (*Jasione montana*)
St Johns-wort (*Hypericum perforatum*)
Wild Grasses (*Poaceae*)
Wild Marjoram (*Origanum vulgare*)
Wild Pansy (*Viola arvensis*)
Yarrow (*Achillea millefolium*)
Autumn Hawk-bit (*Leontodon autumnalis*)
Birds-foot Trefoil (*Lotus corniculatus*)
Black Medick (*Medicago lupulina*)
Bladder Campion (*Silene vulgaris*)
Common Knapweed (*Centaurea nigra*)
Common Spotted Orchid (*Dactylorhiza fuchsii*)
Corncockle (*Agrostemma githago*)
Crested Dogs-tail (*Cynosurus cristatus*)
Red Fescue (*Festuca rubra*)
Sheep's Fescue (*Festuca ovina*)
Small Scabious (*Scabiosa columbaria*)
Thrift (*Armeria maritima*)
Viper's-Bugloss (*Echium vulgare*)
Wild Basil (*Clinopodium vulgare*)
Wild Red Clover (*Trifolium pratense*)
Yellow Rattle (*Rhinanthus minor*)







Peregrine Falcon

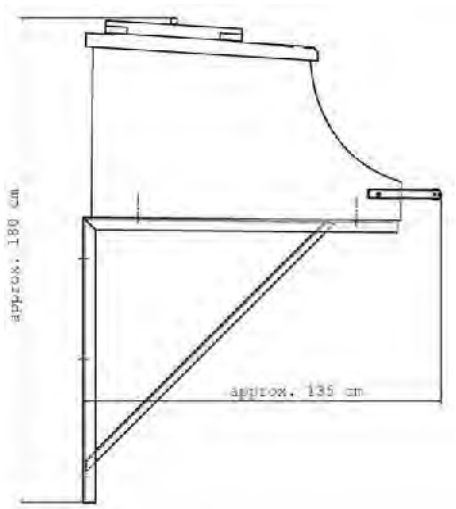
Peregrine Falcons have been sighted in urban Manchester and can form a material consideration of planning, in association with Policy EN15 under Biodiversity & Geological Conservation of the Manchester Core Strategy 2012 to 2027. Peregrine diet consists almost entirely of birds, meaning one of their 'ecological functions' is control of the Feral Pigeon, making them a natural and efficient method of 'controlling' urban pigeon abundance. Historically, this species has suffered as a result of building renovation and change in design, notably they struggle with smooth façades and smooth, angled roofs. The creation and installation of artificial nesting aids on high structures has proved very useful in aiding their recovery and in modern times the UK conservation success of the Peregrine conservation is somewhat of a nationwide triumph which is testament to smart local planning decisions in relation to this species.

Installation height: Generally in heights above 25 – 30m. North or east-facing sites have proved to be most effective. The "balcony" with its perch should be placed so that there is a clear area directly below. The box can be attached directly to a building using screws (e.g. on flat roof sections) or, by means of a mounting rack and wall plugs, onto an outside wall. Recommended litter/ bedding: Place some gravel or other loose material in the box. Peregrines do not construct nests; instead the female scrapes a hollow in which to hatch the eggs. The breeding period starts any time between mid-March and the beginning of April.









Black Redstart

The integral Black Redstart nest box is intended to be built into walls to provide nesting cavities. This provides much needed nesting provision for this protected and threatened species. Constructed from FSC certified Wood Stone this nest box will not deteriorate like a traditional wooden nest box. Externally fitted boxes are also available.



For information see - www.nhbs.com/woodstone-build-in-open-nest-box

Bats



Norfolk Bat Brick was designed in 1984 to aid in overcoming a shortage of hibernation crevices for bats in suitable habitats. Since then the design has been carefully optimised to maximise the efficacy of the brick for attracting and protecting crevice hibernating bats being deployed in thousands of locations across the UK with great success, commonly attracting between one and three bats per brick.

Norfolk bat bricks can be built in to concrete/brick facings.

For information see - www.nhbs.com/norfolk-bat-brick