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Joelle Ivett
Arcadis (UK) Limited
Suite 1A
4 Piccadilly Place
Manchester
M1 3BN



Genesis Centre,
Birchwood Science Park,
Warrington
WA3 7BH

Tel: 01925 844004
Fax: 01925 844002
tep@tep.uk.com
www.tep.uk.com

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Market Harborough | Gateshead | London | Cornwall

Dear Joelle,

PLANNING | DESIGN | ENVIRONMENT

RE: EMBASSY VILLAGE- PRELIMINARY BAT ROOST ASSESSMENT

The Environment Partnership (TEP) was commissioned in December 2022 by Arcadis (UK) Limited to undertake a Preliminary Roost Assessment of built structures, including railway arches and a hut, between the Bridgewater Canal and River Medlock in Manchester (SJ 82719 97479) to discharge planning condition 3 for the development of 40 single-occupancy residential accommodation pods, services, amenity space and hard/soft landscaping (Planning Ref: 129923/FO/2021):

“No development shall commence unless and until location-specific endoscope surveys for bats of any cracks and crevices in the brickwork that may be subject to repair works needed to facilitate the development are carried out in accordance with a statement to be submitted to and approved in writing by the City Council as local planning authority. Endoscope surveys must be undertaken by suitably qualified persons. In the event that bats are found, a method statement giving details of measures to be taken to avoid any harm to bats during works shall be submitted to and approved in writing by the City Council. The approved measure shall be carried out during the works.”

A Preliminary Roost Assessment of structures for roosting bats was undertaken by TEP Senior Ecologist Stephanie Davies on 12th December 2022 (Natural England survey licence ref: 2020-44415-CLS-CLS). The structures were inspected both externally and internally (where possible) for field signs of bats such as droppings, scratch marks, insect remains and urine smear marks. Binoculars and an endoscope were used as aids. The survey was conducted with year-round use by bats in mind. Structures were categorised in accordance with the Bat Conservation Trust (BCT) Good Practice Guidelines (Collins, 2016¹) for their potential to support roosting bats.

There are in total 11 open railway arches which support the Network Rail railway line, 11 railway arches supporting the Transport for Greater Manchester (TfGM) and one ‘hut’ (as described in Proposed Demolition Plan _MP_02_1100 Rev A).

The Network Rail arches are comprised of brick and sandstone and are generally well-pointed. Potential Roost Features (PRFs) identified include small gaps between the brick arch and the southern brick abutment on the western-most four arches (Figure 1). These PRFs extend from approximately 1m to the top of the abutment. The gaps at ground-level could be inspected with an endoscope and provide a depth of approximately 3cm. The feature could not be fully inspected for the full length due to the height. Additionally, gaps between the brickwork in the

¹ BCT 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines. Bat Conservation Trust 3rd Ed.



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centre of the arch within the 6th and 7th arches from the west were noted. The gaps at ground-level could be inspected with an endoscope and provide a depth of approximately 3cm (Figure 2). The feature could not be fully inspected for the full length due to the height. The overhead railway line will generate a level of disturbance to the PRFs identified. These PRFs were assessed as having low suitability for roosting bats, due to the conditions offering limited shelter/protection and would likely be used on an opportunistic basis. These PRFs do not provide suitable hibernation potential. Given that the structures support an active railway line, no direct impacts on these structures are anticipated as a result of the proposed development. There will be an approximate 3m stand off from the existing Network Rail arches and proposed development. Indirect impacts from proposed external lighting are possible on any potential roosting bat. Feral pigeon were noted in the steel girders.

The TfGM arches comprise five closed arches and six open sided arches. The open arches comprise brick piers supporting a concrete girder. No PRFs were identified in any of the open, six TfGM arches. The closed arches, used as cold stores, were inspected internally. A number of plywood boards were fixed to the walls in the cold stores which provide a crevice suitable for roosting between the brick wall and plywood boards (Figures 3 & 4). Additionally, gaps in the external brickwork provide access to the interior of the cold stores and internal PRFs. These PRFs were assessed as having low suitability for roosting bats, due to the conditions offering limited shelter/protection and would likely be used on an opportunistic basis only. These PRFs do not provide suitable hibernation habitat. No other roost features were identified in the closed TfGM arches. Two of the closed stores will have the northern and southern walls demolished to open up the arches to facilitate development (Proposed Demolition Plan MP_02_1100 Rev A). As a result, the identified PRFs will be lost and demolition works have potential to damage, destroy or disturb any potential bat roost.

The 'hut' comprises a single storey brick storeroom. The roof is flat, with corrugated uPVC and is in a state of disrepair with large openings. There are no windows, no soffits, and no barge boards. No suitable PRFs were identified, and the 'hut' was assessed as having negligible suitability for roosting bats. The 'hut' will be demolished to facilitate development, there are no further implications for the development with regard to roosting bats.



Figure 1: Gaps between the Network Rail arches and southern abutment

Figure 2: Gaps between brickwork in the centre of the Network Rail arches (Arches 6 & 7).



Figure 3: Plywood board fixed to the interior wall of cold store



Figure 4: Gap between plywood and brick wall.



Figure 5: The brick 'hut'

No protected flora under Schedule 8 of the Wildlife & Countryside Act 1981 (as amended) or non-native invasive flora under Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) or under the Invasive Alien Species (Enforcement and Permitting) Order 2019 (IAS) were identified within the site.

Recommendations

All bat species and their roosts are legally protected in the UK. All bats are listed as European Protected Species (EPS) in Conservation of Natural Habitats and of Wild Fauna and Flora, better known as the Habitats Directive. There is also protection for bats and roosts in England under the Wildlife & Countryside Act 1981 (as amended).

The gaps between the brickwork in the Network Rail arches and gaps between the plywood and brick in the TfGM arches were assessed as having low suitability for roosting bats. Due to overriding health & safety reasons, it is not suitable to undertake nocturnal surveys in this area. As such, it is recommended that these PRFs are inspected, during the daytime, by a licenced bat ecologist to determine the presence/absence of roosting bats. As the PRFs are assessed as having 'low' suitability, one daytime inspection is required between May and August to determine the presence/absence of roosting bats, prior to any demolition works.

Due to the height of the PRFs in the Network Rail arches, it is recommended these features are inspected by safe access from scaffolding or a Mobile Elevating Work platform (MEWP).

If a bat roost is confirmed during the daytime inspections, an additional two surveys would be required to enable roost characterisation to a level satisfactory to support a European Protected Species (EPS) licence application to Natural England.

A Sensitive Lighting Design should be implemented as part of the scheme to avoid indirect impacts of lighting on nocturnal and crepuscular species, with particular reference to the retained woodland. There are four key lighting design principles:

- Use of unnecessary lighting will be avoided.
- Spatial spread of lighting – the horizontal and vertical spread of artificial light will be minimised and take into account both primary and reflected light sources. Directional lighting can be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.
- Timing and duration of lighting – timers and bespoke dimming regimes may be used to ensure that luminaires are reduced at times of predicted low use. These can be set to change with the seasons and therefore reflect the shifting time of dusk and dawn throughout the year. Motion sensors provide further control to ensure that areas are illuminated only when required.
- Intensity and colour of lighting – light intensity will be as low as possible whilst meeting the objectives of the intended function. The colour of lighting will need to take into account the sensitivity of the ecological receptors on site. Light sources selected should emit zero ultra-violet light wherever possible. Interim guidance from the Bat Conservation Trust (2014) recommends that white and blue spectrum light should be avoided or, where white lights are required, these should be of warm/neutral colour and have a peak wavelength above 550 nanometers. Narrow spectrum light sources should be used (to lower the range of species affected by lighting).

Under the Wildlife and Countryside Act 1981 (as amended), it is an offence to intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built. The dense scrub and scattered trees within the work areas provide suitable nesting habitat for a range of common and widespread bird species in the area.

It is recommended that all building demolition avoids the core breeding bird season, March to August inclusive; although it should be noted that bird nesting can take place outside this period.

If demolition works are necessary during the core breeding bird season, or at any time when bird nesting is suspected, a nesting bird check of the affected area by an experienced ecologist should be undertaken to avoid committing an offence. The nesting bird check will take place no more than 24 hours prior to the works. In the event that an active nest is found the ecologist will provide advice on setting up a suitable protection area around the nest until the young have fledged. The extent of the exclusion zone will depend upon the bird species concerned and its location within the development.

Yours sincerely,



Stephanie Davies
Senior Ecologist
TEP