ECOLOGIST DAILY DIARY

PROJECT TITLE:	UB240/131 Viaduct	PROJECT NO:	20140

START DATE/TIME	SITE (STRUCTURE NO., LINE, CHAINAGE):	POSTCODE, OSGR, NEAREST TOWN	COMPLETED DATE/TIME
24/08/23 20:00	UB 240/131 Viaduct NEM3 2m 1298yds	G11 6EH NS 55898 66224 Partick, Glasgow	24/08/23 22:15
WEATHER:	Light rain showers, 50-100% cloud cover, F1 wind.	**TEMPERATURE:**	12-14°C

SITE COMMENTS

GENERAL

IKM Consulting (IKM) was commissioned by Story Contracting (Story) to undertake a bat activity survey of UB 240/131 Viaduct, located at 2m 1298yrds on the NEM3 line, central OS Grid Reference NS 55908 66235, Partick, Glasgow.

A Preliminary Ecological Appraisal (PEA) of the structure and surrounding habitats was undertaken by IKM in February 2023. The UB 240/131 structure was assessed as supporting ***Low*** bat roost potential, and as such a single bat activity survey was required to determine the presence or likely absence of any roosting bats within the structure.

The works proposed at the structure are part of the CP7 wider package of work across Scotland. The scope of works broadly includes repairs and painting of the structure, but project specific details are not known. Timescales for the works at the structure are currently unknown.

METHODOLOGY

A dusk bat activity survey of the UB 240/131 structure was undertaken by IKM Senior Ecologist and licenced bat worker Carolyn Drane, IKM Assistant Ecologists Jack Morris and Isabel Taylor, and IKM assistant bat surveyor Isla Craig on the 24th of August 2023.

The survey aimed to record the presence of all species (whether they were considered to be roosting or foraging) in order to ascertain the usage of the site in terms of roosting bats. This will inform any mitigation or licencing requirements under the following legislation:

Conservation (Natural Habitats, &c.) Regulations 1994, as amended

Under this legislation, it is an offence to deliberately or recklessly:

- Capture, injure or kill a wild bat;
- Harass a wild bat or group of bats;
- Disturb a wild bat in a roost (any shelter or place it uses for shelter or protection);
- Disturb a wild bat whilst it is rearing or otherwise caring for its young;
- Obstruct access to a bat roost or otherwise deny the animal the use of the roost;
- Disturb such a wild bat in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of that species;
- To disturb a wild bat in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young
- Disturb a bat while it is migrating or hibernating.

It is also an offence to:

- Damage or destroy a bat roost and this does not have to be deliberate or reckless to constitute an offence.

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A dusk emergence survey was carried out in accordance with best practice guidance as described in Collins, 2016. All surveyors were in position at 20:18, 15 minutes prior to sunset, and the survey continued 90 minutes after sunset until 22:03. Surveyors were positioned as to provide the best coverage of the structure, as shown on **Figure 1** below. Photographs of the structure are also provided below.

The survey was completed using EchoMeter Touch 2 Pro devices with Android Tablets. To aid the identification of roost access points, Sony FDR-AX53 4K Video Camcorders (on night-mode) and infra-red lighting were also utilised. The cameras and infra-red lighting were set up to capture a wide an angle as possible covering all noted potential roost features. All camera equipment was monitored throughout the survey by the surveyors, and camera or light angles adjusted where required.

The footage was analysed on completion of the surveys to confirm any roost access points observed by the surveyors and identify any roost locations after features could no longer be seen by the surveyors. All footage collected was viewed at double or normal speed where required, specific times where surveyors noted bat activity was viewed at normal speed and the last 30 minutes of the dusk survey, where the visibility for surveyors was lost, was viewed at normal speed.

Limitations

The assessment aims to provide a baseline of potential or confirmed (where possible) ecological constraints and is not designed to replace the need for further detailed surveys where considered necessary, based on the project proposals and assumptions.

This survey represents a 'snapshot' of the bat species present at the time of the survey. The absence of evidence of any particular species from the survey does not always indicate that a species is absent from any given area where suitable habitat is present.

It is considered that the survey completed was not associated with any significant limitations. The surveys were completed during the recognised bat active season following best practice guidelines. All aspects of the structure were adequately viewed during the surveys.

Calls of the *Myotis* genus and those of brown long eared bats (*Plecotus auritus*) can be difficult to distinguish between and cannot always be determined to species level. Where this was the case, calls have been determined to *Myotis* sp. type call level only.

RESULTS

No roosting bats were identified during the bat activity survey.

The first bat of the survey was a soprano pipistrelle (*Pipistrellus pygmaeus*) pass recorded at 20:59 at the northwest side of the bridge, 26 minutes after sunset, but was not associated with any roosting behaviour.

A single soprano pipistrelle was recorded foraging under and around the structure between 21:21 and 21:23.

Both common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle bats were recorded continuously foraging under the structure from 21:26 until 21:55. Social calls were also recorded and a maximum of two bats recorded at any one time.

There was a further faint common pipistrelle pass recorded at 22:01 on the southeast side of the bridge, with no visual associated with the pass.

No other bat species were recorded during the survey.

A review of the camera footage collected during this survey did not identify any roosting bats.

RECOMMENDATIONS

As no roosting bats were identified within UB 240/131, it is considered no further bat surveys are required at the structure at this stage. If in the event that the required works at the structure have not commenced within 12 months of the date of these surveys (i.e., by August 2024), an update assessment of the structure and update activity surveys will be required to ensure that the baseline conditions have not changed.

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If at any point during the structure works, any roosting bats, or suspected roosting bats are identified, all works within 30m must cease immediately, the area made safe, and a licenced bat worker contacted immediately. For all (any) night-time working at the structure, a lighting plan should be in place to ensure that site lighting is restricted to the works area only with minimal light spill to the wider area and River Kelvin riparian corridor. The area should not be lit when site staff are not in attendance.
REFERENCES
Bat Conservation Trust (2022) Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys. The Bat Conservation Trust, London Collins (2016) Bat Surveys for Professional Ecologist – Good Practice Guidelines, 3rd Edition. Bat Conservation Trust, London. IKM Consulting (2023) 19752 – 230124 - UB 240/131 Viaduct Condition Led Repairs and Painting - PEA

COMPLETED BY:	Isabel Taylor	**DATE:**	28/08/23
CHECKED BY:	Carolyn Drane		

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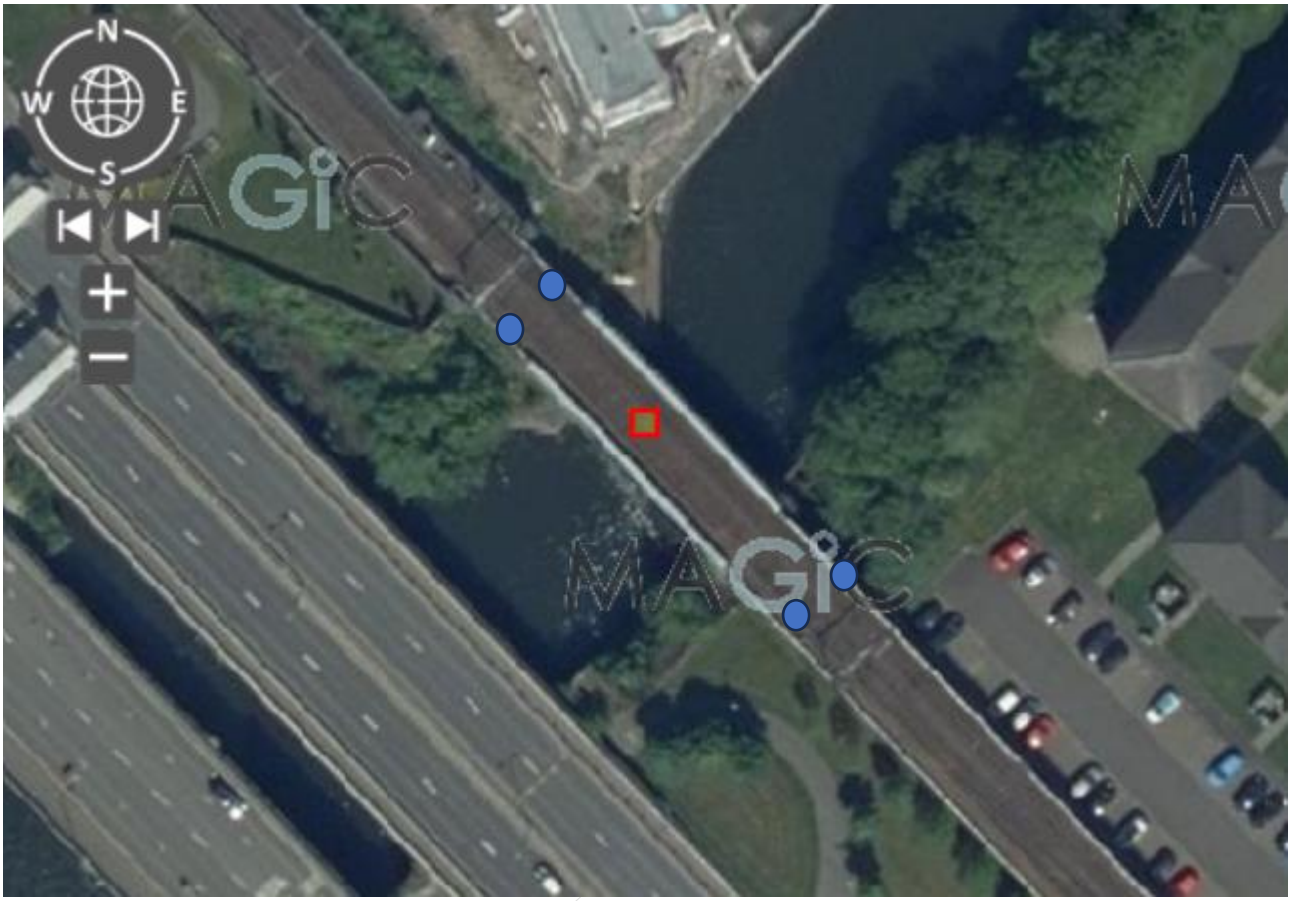
Figure 1: Positions of surveyors (blue circles) in relation to the UB 240/131 structure (red square)



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Site Photographs

Photograph 1: View of the northern pillar at the northwest side of UB 240/131

Photograph 2: View of the southern pillar at the northwest side of UB 240/131

Photograph 3: View of the southern pillar at southeast side of UB 240/131

Photograph 4: View of the northern pillar at the southeast side of UB 240/131