Appendix 9.4: Updated Bat Assessment 'LFC Bat Technical Note: Bat survey results – Anfield Stadium'

Turley

MOTT MACDONALD

Technical Note

Project:	Liverpool Football Club Event Management		
Our reference:	396087	**Your reference:**	SH-MMD-XX-RP-J-001
Prepared by:	C. Maghanga	**Date:**	01/06/2018
Approved by:	M. Freckleton	**Checked by:**	P Renshaw
Subject:	Bat survey results – Anfield Stadium		

1 Background

Mott MacDonald Limited has been commissioned by Liverpool Football Club (LFC) to undertake a high-level review of potential impacts in relation to ecological issues at Anfield Stadium. The review is due to a planning application for a change of use at the stadium to permit the staging of concerts and events.

It is proposed that the concerts and events would take place over a 6-week window at the end of the football season, from mid-May to the end of June. The application requests that up to 10 events per annum be permitted, which could cover music concerts, other sporting events or alternative performances. This assessment covers the potential effects of such uses of the stadium in relation to ecology, and provides recommendations as required.

A previous survey undertaken to support the application for expansion of the stadium (LPA ref: 14F/1262) identified the presence of a single bat in the Kop Stand. Following the results and recommendations of that initial bat assessment (January 2014), a preliminary bat roost assessment was repeated to inform the requirement for further surveys to determine the current presence/absence of bats within Anfield Stadium. A daytime site visit was conducted on 26th April 2018, by Caroline Maghanga (Senior Ecologist), and Sam Smith (bat licensed Ecologist, licence number 2015-17851-CLS-CLS). The results of the site visit are summarised in Section 2.

Based on the findings of the initial bat roost assessment, and the presence of bat droppings observed and collected during the visit on 26th April 2018 (which were in the same location as originally discovered in 2014), a further endoscope check and evening emergence survey were undertaken on 16th May 2018 by Paul Renshaw (Senior Ecologist and bat licence holder, ref: 2015-15158-CLS-CLS) and Sarah Lyons (Graduate Ecologist). Further surveys were undertaken with four surveyors situated internally and externally to the potential bat roost on the dusk of the 5th June by Paul Renshaw, Steph Cottell (Senior Ecologist), Kim Bowman (Graduate Ecologist) and Nick Haigh (Graduate Ecologist) and dawn of 16th June with Sam Smith, Kim Bowman, Nick Haigh and Celise Taylor (Graduate Ecologist).

2 Results and Discussion

The conclusion of the initial bat roost assessment has not changed from that carried out in 2014; the stands and buildings still generally have low bat roost potential, and bat droppings were again observed underneath the back handrail of the 2nd floor of the Kop corridor, full details of which can be found in Environmental Statement Expansion of Anfield Stadium of Liverpool Football Club Volume 2, Part 3, Appendix 4.1

(Document reference: 317415/WTD/BTL/2/B). This identified a minor roost on the second floor Kop corridor and have stated this is probably due to the limited use of the stadium over the summer period.

A sample of these droppings were collected and analysed. The results confirm they are from a common pipistrelle bat *Pipistrellus pipistrellus.*

Using an endoscope, the crevice between the handrail and the wall was carefully examined all the way along the structure to check for the presence of any bats. None were observed.

No bats emerged from this structure during the evening emergence survey.

As a consequence of these surveys it that this is a transient roost, which is not occupied all the time. It is difficult to determine the impact of the proposed change of use of the stadium as it is currently not possible to state when any bats last roosted within the Kop corridor, or whether they will roost there again.

Table 1: Photographs of site

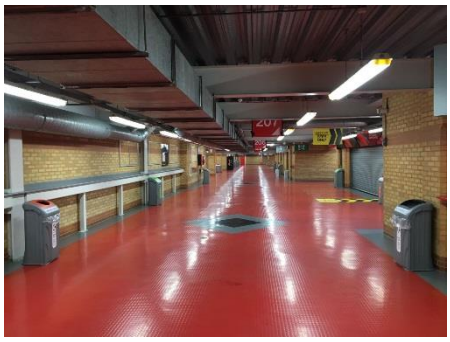
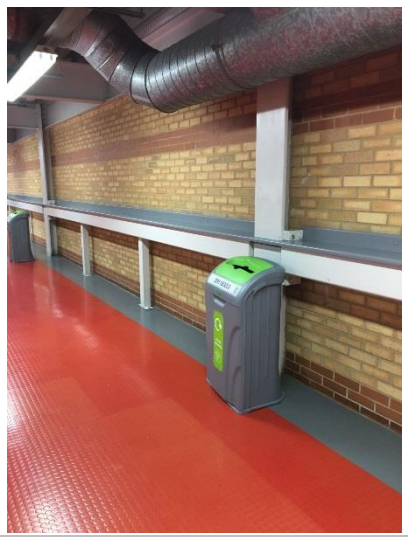
Description and Grid Reference.	Ecological constraint (if applicable)	Photo reference(s)
• Photograph to illustrate the 2nd floor corridor at the back of the Kop stand. Note the height of the handrail on left side.		 **Photo 1.**
• Hand rail along back wall of corridor		

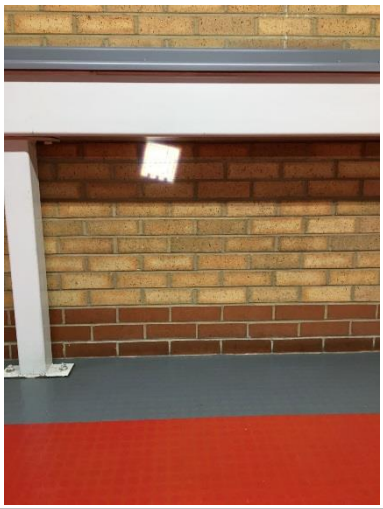
		Photo 2.
• Crevice between wall and handrail (searched with endoscope along length of wall/handrail).		 **Photo 3.**
• Bat droppings stuck to wall underneath handrail.		 **Photo 4.**
• Photograph to show the wall in relation to the handrail.		

		Photo 5.

3 Conclusions and Recommendations

No bats were directly observed either behind the handrail, or emerging/flying in the corridor. Whilst there is evidence of previous bat presence, it is difficult to confirm either the continued presence of this bat(s), or that they are no longer present. There is no guaranteed method to determine the age of bat droppings.

The 16th May dusk emergence survey recorded no bats emerging, commuting or foraging during the whole survey. The ecologists remained within the corridor with one occasionally heading out onto the pitch side.

The 5th June dusk emergence survey recorded no bats emerging, commuting or foraging during the whole survey. No bats were seen emerging from the inside corridor or externally. No calls were recorded during the external survey.

On the dawn survey of 16th June one bat was seen to be flying around the stadium around half an hour before dawn. This disappeared prior to dawn and was not thought to be roosting within the stadium. Nothing was seen entering the building either on the corridor or on the external survey.

The conditions within the stadium are not of high quality for foraging bats. There were no insects and little habitat for insects. The pitch grass is of limited value for foraging due to being heavily cut and fertilised.

From the surveys carried out no bats are thought to be roosting within the Anfield stadium. There is no evidence to say that bats are consistently still using the identified location for roosting.

4 References

Bat Conservation Trust (BCT) (2016). *Bat Surveys for Professional Ecologists – Good Practice Guidelines*. Third Edition. Bat Conservation Trust; London.

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