

Appendix 7.3

Bat Surveys

RED BANK OUTLINE APPLICATION

Bat Survey Report

March 2023 (DRAFT)



Far East
Consortium



THE
ENVIRONMENT
PARTNERSHIP



Red Bank and New Town Residential Led Developments

Manchester

Bat Survey Report

TEP

Genesis Centre
Birchwood Science Park
Warrington
WA3 7BH

Tel: 01925 844004

Email: tep@tep.uk.com

www.tep.uk.com

Offices in Warrington, Market Harborough, Gateshead, London and Cornwall



Document Title	Bat Survey Report
Prepared for	Far East Consortium (FEC) Ltd
Prepared by	TEP- Warrington
Document Ref	9082.018

Author	Stephanie Davies
Date	February 2023
Checked	Emma Pickering
Approved	Emma Pickering

Amendment History					
Version	Date	Author / Modifier	Checked / Approved	Reason(s) issue	Status
2.0	12/04/23	HG	HG	Minor wording updates	Issue
3.0	14/04/23	HG	HG	Minor boundary updates	Issue

CONTENTS	PAGE
1.0 INTRODUCTION	1
Legislation	1
Site Description	2
2.0 METHODS	3
Desk Study	3
Roost Surveys	3
Activity Transects & Static Monitoring	6
Evaluation Method	7
3.0 RESULTS	10
Desk Study	10
Roost Surveys	10
Activity Transects & Static Monitoring	16
4.0 EVALUATION	18

TABLES

Table 1: Categorisation of buildings for bat roost suitability	3
Table 2: Details of nocturnal roost survey of buildings	5
Table 3: Categorisation of trees for bat roost suitability	6
Table 4: Species rarity in England (adapted from Wray et. al 2010)	7
Table 5: Valuation of roosts	7
Table 6: Valuing commuting habitat for bats	8
Table 7: Valuing foraging habitat for bats	8
Table 8: Scoring system for commuting and foraging habitats	9
Table 9: Results of daytime building inspections	10
Table 10: Results of daytime bridge inspections	15
Table 11: Evaluation of the site for commuting bats	18
Table 12: Evaluation of the site for foraging bats	19

FIGURES

Figure 1: Site Location and Context	2
Figure 2: Bat roost access points (A- B)	16

1.0 INTRODUCTION

- 1.1 The Environment Partnership (TEP) were commissioned, by Far East Consortium (FEC) in December 2022, to undertake an assessment of the site for roosting bats. The assessment covers both the application in detail for the NT02-04 plots and the outline application for the Red Bank Plots (RB01-07, RB12B, RB10, RB16 and RB17) (hereafter referred to as 'the site').

Purpose of this Document

- 1.2 This report has the following objectives:
- give an overview of the habitats present within the site which could be used by bats for roosting;
 - identify and characterise any confirmed bat roosts within the site, including species, type and status of roost;
 - identify how bats use the site for foraging and commuting; and
 - evaluate the value of the site for bats.

Legislation

- 1.3 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 and Wales under the Wildlife & Countryside Act 1981 (as amended).
- 1.4 It is a criminal offence if any persons:
- deliberately capture, injure or kill a bat;
 - intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
 - damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
 - possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; or
 - intentionally or recklessly obstruct access to a bat roost.
- 1.5 A number of bat species are also listed as Section 41 UK Priority Species including barbastelle bat *Barbastella barbastella*, 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*. Bats are also identified with LBAPs by Greater Manchester.

Site Description

- 1.6 The central grid reference of the site is SJ 84618 99541 and the location of the site is shown in Figure 1 below. The site is irregular in shape and occupies land to the south of Red Bank Road, Manchester. The site is bound by existing commercial and industrial uses to the north, hardstanding car park, existing commercial units to the west and the former Red Bank viaduct, Dantzic Street and Collyhurst Road to the south, and existing commercial units to the east including the HMG Paint complex.

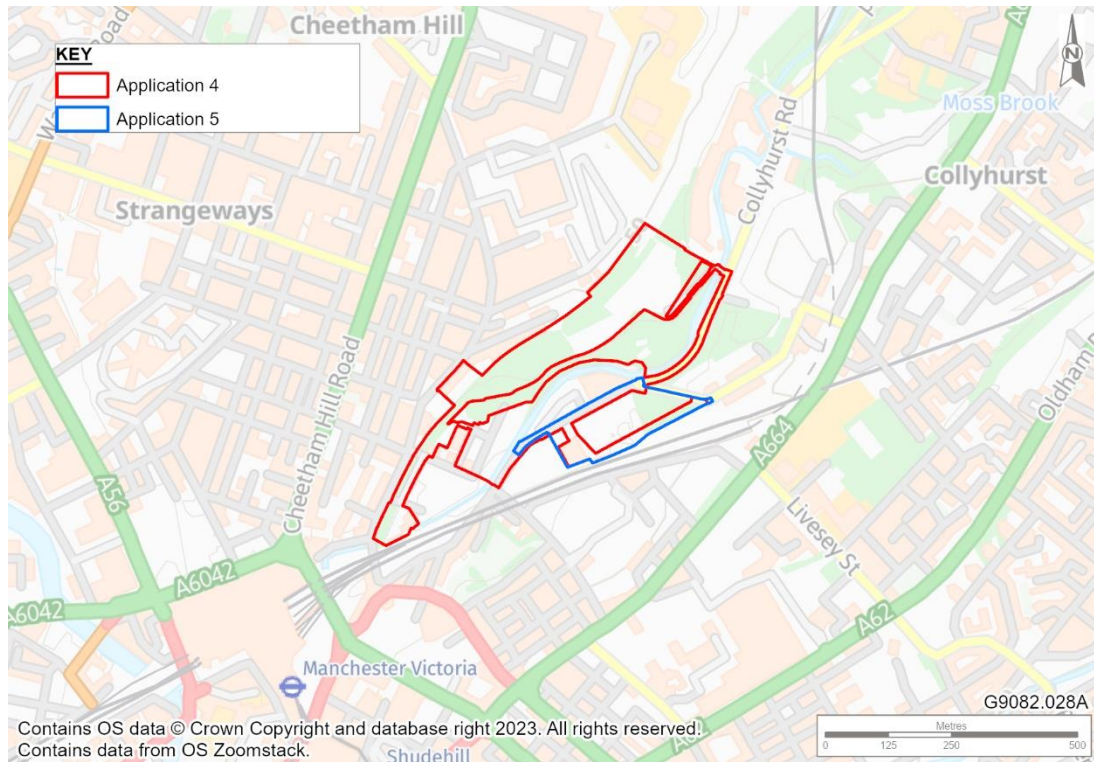


Figure 1: Site Location and Context

2.0 Methods

- 2.1 The following bat surveys were undertaken in accordance with the Bat Conservation Trust (BCT) Survey Guidelines (Collins, 2016¹).

Desk Study

- 2.2 Information regarding historic flora species records, protected habitats and protected sites was collated as part of a desk study which was completed in December 2022.

Roost Surveys

Buildings

Preliminary Roost Assessment

- 2.3 A daytime building external survey was carried out at buildings on 22nd and 29th March 2021 by Stephanie Davies (Natural England Class Survey licence Ref: 2020-44415-CLS-CLS).
- 2.4 The buildings/structures were inspected externally 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.
- 2.5 Buildings were categorised according to their bat roost suitability as determined by the characteristics and potential roost features (PRF) detailed in Table 1.

Table 1: Categorisation of buildings for bat roost suitability

Suitability	Characteristics		Potential Roost Features
High	<i>Several of the following features:</i>	Pre – 20th century buildings. Agricultural buildings of traditional brick, stone or timber construction. Large unobstructed flying spaces. Roof warmed by sun, in particular south facing roofs without shade. Large roof timbers with gaps at joints (e.g. mortise joints), cracks and holes. Numerous access points for bats to fly into. Buildings near woodland and/or water. Low levels of disturbance. Buildings may be poorly maintained or aged, providing access points for bats into roof structures or crevices in bridges, but at the same time not too draughty, wet or cool.	PRF that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time (e.g. maternity/hibernation) due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	<i>Some of the following features:</i>		One or more PRF 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 (maternity/hibernation).

¹ Collins, J (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London
9082.018
Version 3.0

Suitability	Characteristics	Potential Roost Features
Low	Modern/intact buildings with few potential access points for bats. Brick buildings often with pitched slate or tile roofs but may have small or cluttered roof space. Flat roofed buildings with weatherboards or similar feature at the eaves with potential bat access behind or into building. Cooler, shaded, light or draughty voids. Buildings often lacking connectivity to woodland or areas of water.	One or more PRF that could be used by individual bats opportunistically, however, these PRFs 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.
Negligible	Flat roof structures lacking weatherboards, hanging slates or cladding. Modern/intact buildings with no bat access points. Lacking connectivity to any woodland or areas of water. High levels of regular disturbance. High levels of internal/external lighting. Buildings in very poor condition such that internal spaces are not weatherproof, being exposed to high levels of light, wind and/or rain.	Negligible habitat features on site likely to be used by roosting bats.

Survey Constraints

- 2.6 Bat droppings are one of the field signs the survey looks to identify as evidence of bat activity. However, droppings on external surfaces can be washed or blown away by weather. Weather prior to and during the daytime external survey was calm with no rain and therefore there was no significant constraint to the external inspections.
- 2.7 No internal access to the buildings was undertaken at the time of the survey. This was due to health and safety guidance surrounding COVID-19 at the time of the survey. Survey methods, such as internal inspection of roof voids, cannot be undertaken following social distancing guidance from the Government and company policies at the time.

Nocturnal Roost Surveys of Buildings

- 2.8 Buildings B12, B14 and B17 were identified during the daytime evaluation to have suitability for roosting. These buildings were therefore subject to further nocturnal surveys in accordance with their evaluation (high, moderate or low suitability receiving three, two or one nocturnal survey, respectively).
- 2.9 Surveys were led by Stephanie Davies (Natural England Licence Ref: 2020-44415-CLS-CLS). Surveyors were stationed at fixed vantage points around the buildings such that all elevations and gables were in view. All potential building access points for bats were covered by strategic placements of surveyors. Dusk emergence surveys commence 15 minutes before sunset and finish 1.5 hours after sunset.
- 2.10 One heterodyne and either one frequency division detector (Anabat SD2 or Anabat Express) or full spectrum detector (Bat Logger M) were employed at each vantage point on all surveys. Radios were utilised for communicating between surveyors to reduce interference from mobile phones and to enable coordination when recording observations.

- 2.11 During each survey observations such as bat species, the number of bats entering or leaving the building, the location of entry and exit points, behaviours such as close interest in a building or its features, commuting or passing bats and weather conditions were recorded.
- 2.12 Weather conditions were recorded at the start and end of surveys in addition to any significant change in condition during the survey. Weather conditions were recorded at the start and end of surveys in addition to any significant change in condition during the survey. Weather was optimal during all the nocturnal surveys, temperatures ranging from 19°C at the start to 18°C at the finish.
- 2.13 Calls of bats recorded by the frequency division detectors were analysed to verify species identification after the completion of nocturnal surveys using Kaleidoscope Pro Analysis software by Stephanie Davies.

Table 2: Details of nocturnal roost survey of buildings

Date/ Visit	Feature ID	Time of sunset/ sunrise	Start					Finish				
			Time	Temp	Cloud ²	Rain	Wind ³	Time	Temp	Cloud	Rain	Wind
Visit 1: 05/07/21	B12, B14, B17	21:38	21:23	17	8	None	0	23:08	16	8	None	1
Visit 2: 02/08/21	B14	21:05	20:50	14	2	None	0	22:35	12	1	None	1
Visit 3: 19/08/21	B14	20:09	20:14	19	8	None	1	22:00	18	7	None	1

Limitations

- 2.14 Dawn re-entry surveys were not used at this site due to over-riding health & safety concerns. Many of the fixed vantage points are located in or adjacent to St. Catherine's Wood. Unauthorised encampments are present within the woodlands on site. Arriving on site, pre-dawn, and walking through the woodland at low light levels while people are potentially rough sleeping was considered a significant health & safety risk.
- 2.15 There was some light rain at the end of visit 1 (05/07/21), this began at approximately 23:00 (sunset +82 mins). This is not considered a significant limitation to the survey.

² Cloud cover is reported in oktas or eighths (i.e. 0 oktas represents the complete absence of cloud, 1 okta cloud cover of 1 eighth or less, and so on to 8 oktas which represents full cloud cover), with the additional convention that 9 oktas represents sky obscured by fog or mist.

³ Wind strength is reported using the Beaufort Scale of Wind Force, this scale runs from 0 to 12, information on the conditions experienced during surveys are as follows: 0 – Calm (vertical smoke); 1 – Light Air (slight smoke drift); 2 – Light Breeze (leaves gently rustle).

Data Analysis and Species Identification

- 2.16 Recorded data was analysed following completion of the static recording periods using Kaleidoscope Pro Analysis software. Data analysis was completed by Stephanie Davies.

Trees

Preliminary Roost Assessment

- 2.17 All trees within the site were subject to daytime ground level assessment (GLTA) for their suitability to support roosting bats. The GLTA was completed on 22nd and 29th March 2021 by Stephanie Davies.
- 2.18 Trees were viewed from the ground with the aid of binoculars and a high powered torch where necessary. Where accessible from the ground, potential roost features (PRF) were closely inspected using an endoscope and torch as aids. Based on the PRF characteristics, trees were categorised for their roost suitability according to the criteria summarised in Table 3.

Table 3: Categorisation of trees for bat roost suitability

Suitability	Potential Roost Features (PRF)
High	A tree with one of more PRF that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time (e.g. maternity/hibernation) due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A tree with one or more PRF that could be used by bats but which are unlikely to support a roost of high conservation status (i.e. not suitable for maternity or hibernation use).
Low	One or more PRF that could be used by individual bats opportunistically, but which is not suitable to be used on a regular basis or by larger numbers of bats.
Negligible	No PRF present.

Survey Constraints

- 2.19 At the time of the GLTA the weather conditions were optimal for survey.
- 2.20 There are no seasonal constraints for undertaking preliminary bat roost assessments of trees. However, the optimal period to undertake this survey is between December and March when trees are out of leaf. This survey was undertaken during the optimal period.

Activity Transects & Static Monitoring

- 2.1 Bat activity & static monitoring survey visits were not able to be undertaken at this site due to over-riding health and safety issues. After consultation with GMEU, it was agreed records of bat activity collected during nocturnal roost surveys (of buildings along Dantzic Street) and historical data would be acceptable when assessing the site for commuting and foraging bats.

Evaluation Method

- 2.2 For the purposes of this assessment and of assigning value to bats, the guidance set out in (Wray *et. al.* 2010⁴) has been followed.
- 2.3 The guidance provided by Wray *et. al.* (2010) includes a framework for identifying the importance of bats in the landscapes through the evaluation of bat roosts and habitats. Applying this framework, bat roosts can be valued according to species rarity (Table 4) and roost status (Table 5).

Table 4: Species rarity in England (adapted from Wray et. al 2010)

Rarity	Species*
Common (population over 100,000)	Common pipistrelle Soprano pipistrelle Brown long-eared
Rarer (population 10,000 to 100,000)	Lesser horseshoe bat Daubenton's bat Natterer's bat Whiskered bat Leisler's bat Noctule Nathusius' pipistrelle Serotine Brandt's bat
Rarest (population under 10,000)	Greater horseshoe Bechstein's bat Barbastelle Grey long-eared Alcathoe bat Greater mouse-eared bat

Table 5: Valuation of roosts

Geographic Scale Of Importance	Roost Type
Negligible	-
Site	-
Local	Feeding perches (common species) Individual bats (common species) Small numbers of non-breeding bats (common species) Mating sites (common species)
County	Maternity sites (common species) Small numbers of hibernating bats (common and rarer species) Feeding perches (rarer/rarest species) Individual bats (rarer/rarest species) Small numbers of non-breeding bats (rarer/rarest species)
Regional	Mating sites (rarer/rarest species) including well used swarming sites Maternity sites (rarer species) Hibernation sites (rarest species) Significant hibernation sites for rare/rarest species or all species assemblages
National	Maternity sites (rarest species) Sites meeting Sites of Special Scientific Interest (SSSI) guidelines based on bats

⁴ Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25

Geographic Scale Of Importance	Roost Type
International	Special Area of Conservation (SAC) sites with bats as qualifying species

- 2.4 Wray *et. al* (2010) identifies a numerical scoring system which can be applied to commuting habitat (Table 6) and foraging habitat (Table 7). The score derived from these evaluations is then applied to the geographical scale proposed by the CIEEM EclA guidelines (Table 8).

Table 6: Valuing commuting habitat for bats

Species (Score)	Number Of Bats (Score)	Roosts/Potential Roosts Nearby (Score)	Type And Complexity Of Features (Score)
Common (2)	Individual bats (5)	None (1)	Absence of (other) linear features (1)
Rarer (5)	Small number of bats (10)	Small number (3)	Un-vegetated fences and large field sizes (2)
Rarest (20)	Large number of bats (20)	Moderate number/not known (4)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)
		Large number of roosts, or close to a SSSI for the species (5)	Well-grown and well connected hedgerows, small field size (4)
		Close to or within a SAC for the species (20)	Complex network of mature well established hedgerows, small fields and rivers/streams (5)

Table 7: Valuing foraging habitat for bats

Species (Score)	Number Of Bats (Score)	Roosts/Potential Roosts Nearby (Score)	Type And Complexity Of Features (Score)
Common (2)	Individual bats (5)	None (1)	Industrial or other site without established vegetation (1)
Rarer (5)	Small number of bats (10)	Small number (3)	Suburban areas or intensive arable land (2)
Rarest (20)	Large number of bats (20)	Moderate number/not known (4)	Isolated woodland patches, less intensive arable and/or small towns and villages (3)
		Large number of roosts, or close to a SSSI for the species (5)	Larger or connected woodland blocks, mixed agriculture, and small villages/hamlets (4)
		Close to or within a SAC for the species (20)	Mosaic of pasture, woodlands and wetland areas (5)

Table 8: Scoring system for commuting and foraging habitats

Score	Geographic Value
1 – 10	Not important
11 – 20	Local
21 – 30	County
31 – 40	Regional
41 – 50	National

3.0 Results

Desk Study

- 3.1 The desk study identified the following bat records within 2km of the site:
- Brown long-eared bat *Plecotus auritus* (EPS, WCA5, S41, LBAP);
 - Common pipistrelle *Pipistrellus pipistrellus* (EPS, WCA5, LBAP);
 - Soprano pipistrelle *Pipistrellus pygmaeus* (EPS, WCA5, S41, LBAP);
 - Unidentified *Pipistrellus* sp. (EPS, WCA5, LBAP);
 - Daubenton's bat *Myotis daubentonii* (EPS, WCA5, LBAP);
 - Unidentified *Myotis* bat (EPS, WCA5, LBAP).

Roost Surveys

Buildings and Structures

Preliminary Roost Assessment

- 3.2 The detailed findings and a photographic record of the daytime building assessments are presented in Table 9. Drawings G9082.026-27 illustrate the locations for each building.
- 3.3 Based on the daytime surveys, buildings B1- B11, B13, B15, B16, B18 and B19 were assessed to have negligible suitability for roosting bats.
- 3.4 Buildings B12 and B17 were assessed as having low suitability for roosting bats.
- 3.5 Building B14 was assessed as having high suitability for roosting bats.

Table 9: Results of daytime building inspections

Ref	Description	Photographs
B1	Main Creamline double height building comprising corrugated iron with a mono pitched corrugated iron roof with skylights. There are no suitable features for roosting bats. Roost suitability: Negligible	
B2	A single storey and double height brick building previously used as offices for Creamline Dairy. The roof is pitched comprising corrugated iron. The window and door frames are uPVC. There are wooden fascia boards but no gaps between the boards and brick were identified. There are no suitable features for roosting bats. Roost suitability: Negligible	

Ref	Description	Photographs
B3	A small storage outbuilding comprising wooden panelling and wire mesh. The roof is flat and comprised of sheet iron. There are no suitable features for roosting bats. Roost suitability: Negligible	
B4	Single storey loading bays comprising corrugated iron and brick. One side is open fronted. There are no suitable features for roosting bats. Roost suitability: Negligible	
B5	A security lodge porta cabin and adjoining brick electricity store. The porta cabin has a flat roof and steel frame. There are no suitable features for roosting bats. The brick electricity store has a corrugated asbestos lean to roof and wooden fascia boards. No gaps between the boards and brick were identified. There are no suitable features for roosting bats. Roost suitability: Negligible	
B6	A metal shed with adjoining porta cabin. The shed is comprised of corrugated iron with a corrugated iron lean to roof. The porta cabin is wooden with a flat roof. There are no suitable features for roosting bats. Roost suitability: Negligible	
B7	A double storey warehouse comprised of corrugated iron. The roof is pitched and made from corrugated iron. There are no suitable features for roosting bats. Roost suitability: Negligible	

Ref	Description	Photographs
B8	A small brick security lodge with a wooden door. The roof is flat comprised from corrugated iron. There are no suitable features for roosting bats. Roost suitability: Negligible	
B9	A double and single storey warehouse comprised of corrugated iron. The roof is pitched corrugated iron. There are no suitable features for roosting bats. Roost suitability: Negligible	
B10	A single storey brick building used for commercial services. No windows present with large sliding corrugated iron doors. The roof is flat. There are no suitable features for roosting bats. Roost suitability: Negligible	
B11	A large double storey warehouse comprised of brick and corrugated iron. The roof is pitched with skylights. There are no suitable features for roosting bats. Roost suitability: Negligible	 

Ref	Description	Photographs
B12	A large double storey warehouse comprised of brick and corrugated iron. The roof is flat with skylights. On the western wall there are a few gaps in the brickwork which may provide suitable opportunities for opportunistic roosting. Roost suitability: Low	
B13	A series of storage containers and outbuildings comprised mainly of corrugated iron or both brick and corrugated iron. The roofs are mainly flat. There are no suitable features for roosting bats. Roost suitability: Negligible	 
B14	A large, two storey, brick warehouse used for commercial services. The roof has multiple pitches with roof and ridge tiles. The whole roof could not be viewed from the ground due to the structure of the building. It is possible there are slipped roof tiles which have created suitable roosting habitat that could not be viewed. Several of the windows along the river side are smashed, and boarded. Stone lintels are present on the top of the walls and window. No other features suitable for roosting were identified. This building has been categorised on a precautionary basis due to the constraints. Roost suitability: High	
B15	B15 is a derelict building in the south of the site which is in a state of disrepair. It comprises a steel frame and a corrugated iron roof. The building is open on three sides with corrugated iron on the fourth side. The mound has spilled into the internal space of the structure. No potential features suitable for roosting bats were identified. Roost suitability: Negligible	

Ref	Description	Photographs
B16	A small brick structure which has become open to the elements. There are no suitable features for roosting bats. Roost suitability: Negligible	
B17	A small brick outbuilding with a flat corrugated roof. On the western façade is a wooden barge board. There is a fairly big gap between the brick work and barge board. The conditions are not suitable for long term roosting however may be used opportunistically by individual/small numbers of bats. Roost suitability: Low	
B18	B18 comprises a metal shipping container presumably used for storage. The windows are uPVC and window and door frames are metal. No potential features suitable for roosting bats were identified. Roost suitability: Negligible	
B19	B19 comprises a metal shipping container presumably used for storage. There are no windows or doors. No potential features suitable for roosting bats were identified. Roost suitability: Negligible	

- 3.6 One bridge crossing over the River Irk is present within the site boundary; one at Packaging Products (A). This structure was only viewed at a distance as there was no safe access into the River and limited views from the road side. It is thought that this structure would have only low suitability for roosting due to the fluctuating water levels of the River Irk making any potential roost features liable to flooding & less suitable for roosting bats in the long term.

Table 10: Results of daytime bridge inspections

Ref	Description	Photographs
A	Bridge crossing at Packaging Products. This is a small structure comprising a steel bridge and the supporting walls made of sandstone. Gaps between the sandstone blocks, where cement had eroded was visible from the roadside, however close inspection of these features was possible. A precautionary assessment has been made. Roost suitability: Low	

- 3.7 The Lowry Footbridge, in the northeast of the site, comprises brick and sandstone. The whole structure appears very well pointed with no visible gaps in the mortar or brickwork itself. There are no suitable features present for roosting bats, as such was assessed as having negligible suitable for roosting bats.

Nocturnal Roost Surveys of Buildings

- 3.8 Common pipistrelle were recorded roosting within building B14 during the nocturnal roost surveys. Two separate access points were identified (A-B).
- 3.9 During visit 1 (05/07/21) of B14 only common pipistrelle were recorded. The first bat contact was recorded at 21:34 (sunset -4mins). Common pipistrelle (3nr) were seen emerging at 21:43 (sunset +5mins) from between the corrugated roof and soffit box (A) and from the open windows (B) and both on the northern aspect of the building.
- 3.10 No roosting behaviour was recorded during visit 2 of B12.
- 3.11 During visit 3 (19/08/21) of B12, only common pipistrelle were recorded. The first bat contact was recorded at 20:28 (sunset -1mins). Common pipistrelle (1nr) was seen emerging at 20:28 (sunset -1mins) from between the corrugated roof and soffit box (A) both on the northern aspect of the building.



Figure 2: Bat roost access points (A- B)

Trees

Preliminary Roost Assessment

- 3.12 All trees within the site boundaries were assessed for their suitability for roosting bats. All of the trees within the site were assessed as having negligible suitability for roosting bats due to the lack of suitable roosting features.

Activity Transects & Static Monitoring

- 3.13 Paul Chester & Associates undertook a series of survey during 2018 and 2019 to establish the baseline conditions of the wider Northern Gateway project area. The Red Bank study area was subject to extensive bat surveys on a monthly basis over a six month period. This confirmed a number of species from the study area. These were common pipistrelle, soprano pipistrelle, noctule and Leisler's. In excess of 95% of all records related to common pipistrelle. Other species were recorded only rarely and in the case of Leisler's, very rarely. With regard to spatial distribution of bats through the study area, whilst there were occasional records of individual bats scattered across large parts of the study area, in excess of 95% of all records were associated with the River Irk corridor and immediate surrounds. This part of the study area represented the most important foraging habitat, providing an excellent food source as well as a distinctive habitat corridor through the study area.

- 3.14 Whilst no substantial roost was found, small numbers of bats were confirmed as roosting in brickwork adjacent to the River Irk towards the downstream limit of the study area. Roosting was also suspected in buildings close to the River Irk towards the upstream limit.
- 3.15 Nocturnal roost surveys of buildings along Dantzic Street, undertaken by TEP in 2021, identified common pipistrelle and noctule bat present within the area. In excess of 95% of all records related to common pipistrelle. General foraging and commuting activity was noted along the River Irk and within St. Catherine's Wood. These results are akin to the findings of Paul Chester & Associates. Two common pipistrelle day roosts were identified within the Noyek Plywood building during the 2021 roost surveys.

4.0 Evaluation

- 4.1 Three buildings on site were assessed as having suitability for roosting bats (B12, B14 and B17). All other buildings on site were assessed as having negligible suitability for roosting bats due to the lack of potential roosting features (PRFs).
- 4.2 No roosting behaviours were identified in buildings B12 or B17. There are no current implications for the proposed development with regard to roosting bats and these buildings.
- 4.3 Surveys identified common pipistrelle day roosts in B14. Demolition of this structure has the potential to damage, destroy or disturb identified bat roosts (day roosts of common pipistrelle) and as such there are implications for the proposed development with regard to roosting bats in building B14.
- 4.4 The P&P bridge within the site was assessed as having low suitability for roosting bats.
- 4.5 The Lowry Footbridge was assessed as having negligible suitability for roosting bats.
- 4.6 The site is of Local importance for commuting and foraging common and soprano pipistrelle, noctule bat and Leisler's. Evaluation of commuting data is summarised at Table 11 and evaluation of foraging data is summarised at Table 12.

Table 11: Evaluation of the site for commuting bats

Species (Score)	Number Of Bats (Score)	Roosts Nearby (Score)	Type And Complexity Of Linear Features (Score)	Value (Score)
Common pipistrelle (2)	Small number of bats (10)	Small number of roosts (3)	Connected woodland and rivers (5)	Local (20)
Soprano pipistrelle (2)	Individual bats (5)	None (1)	Connected woodland and rivers (5)	Local (13)
Noctule (5)	Individual bats (5)	None (1)	Connected woodland and rivers (5)	Local (16)
Leisler's (5)	Individual bats (5)	None (1)	Connected woodland and rivers (5)	Local (16)

Table 12: Evaluation of the site for foraging bats

Species (Score)	Number Of Bats (Score)	Roosts Nearby (Score)	Type And Complexity Of Habitat Features (Score)	Value (Score)
Common pipistrelle (2)	Small number of bats (10)	Small number of roosts (3)	Connected woodland blocks in urban landscape (4)	Local (19)
Soprano pipistrelle (2)	Individual bats (5)	None (1)	Connected woodland blocks in urban landscape (4)	Local (12)
Noctule (5)	Individual bats (5)	None (1)	Connected woodland blocks and river in urban landscape (4)	Local (15)
Leisler's (5)	Individual bats (5)	None (1)	Connected woodland blocks and river in urban landscape (4)	Local (15)



HEAD OFFICE

Genesis Centre,
Birchwood Science Park,
Warrington
WA3 7BH

Tel: 01925 844004
E-mail: tep@tep.uk.com

**MARKET
HARBOROUGH**

Harborough Innovation
Centre,
Airfield Business Park,
Leicester Road,
Market Harborough
Leicestershire
LE16 7WB

Tel: 01858 383120
E-mail: mh@tep.uk.com

GATESHEAD

Office 26, Gateshead
International Business
Centre,
Mulgrave Terrace,
Gateshead
NE8 1AN

Tel: 0191 605 3340
E-mail: gateshead@tep.uk.com

LONDON

8 Trinity Street,
London
SE1 1DB

Tel: 020 3096 6050
E-mail: london@tep.uk.com

CORNWALL

4 Park Noweth,
Churchtown,
Cury,
Helston
Cornwall
TR12 7BW

Tel: 01326 240081
E-mail:
cornwall@tep.uk.com
