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Ecology and Bat Survey Report – Initial  
Scoping Report

Spafield Mill

Batley

October 2014

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# 1 Summary

- The entire south and east boundaries of the site support established stands of Japanese knotweed.

An appropriate method of the eradication / removal of the Japanese knotweed will be required prior to development.

- No evidence of bats was observed any location.
- Units 3 & 4: Old Mill was considered have a high potential to support a bat roost. Further emergence surveys are recommended between May – August prior to development commencing.
- Unit 9: Laundry was considered have a moderate potential to support a bat roost. Further emergence surveys are recommended between May – August prior to development commencing.
- The House was considered have a low potential to support a bat roost. Further emergence surveys are recommended between May – August prior to development commencing.

## 2 Introduction

### 2.1 Preamble

Oatlands Ecology was commissioned by Tom W Beaumont Ltd to carry out an ecology survey - with a focus on bats – at Spafield Mill Complex, Batley prior to the submission of an outline planning application for a change of use from industrial to residential.

The current site owners do not intend to undertake the development in the immediate future and no date has been set for the development.

### 2.2 Site Location

The property subject to this report is Spafield Mill, Upper road, Batley, West Yorkshire, WF17 7LR.

### 2.3 Description of the Site

#### Buildings

Spafield Mill is composed of at least seven distinct buildings, most of which are divided into two or more separate industrial units. The buildings are varied in terms of size, structural type and age and include a large traditional mill built in 1856 and large open structures constructed of breeze block and corrugated steel panels built in the 1980s.

#### Unit 1: Front Mill - See Section 6: Photographs 1a & 1b

A large building constructed in the 1980s, it is an active industrial unit constructed of brick, corrugated steel panels and corrugated plastic roof panels supported on an internal steel frame. There are high levels of noise and vibrations throughout the day and late into the night.

#### Unit 2: New Mill - See Section 6: Photographs 2a & 2b

A similar, although somewhat larger and possibly older, building than Unit 1, it is constructed of brick, corrugated steel panels and corrugated plastic roof panels supported on an internal steel frame. There is a lower basement used as storage and the main upper section is open to the roof – as opposed to being divided into several stories.

#### Units 3 & 4: Three Story Mill - See Section 6: Photographs 3a – 4b

This is the oldest and largest building on the site. It is two joined buildings – the eastern half constructed in 1856 (Unit 3) and the western half (Unit 3) some years later in the early 1900's. Although designated as two distinct units for site administration purposes it is easier to describe as one unit for the purposes of this report.

The building is in a poor state of disrepair with many sections, including the upper floor almost derelict with collapsing ceilings; broken windows displaced masonry and pointing.

Unit 5: Offices - See Section 6: Photographs 5a & 5b

This is a small, two story building with a toilet / bathroom on the ground floor, offices on the first floor and a roof void, it is joined to Unit 3 (the eastern end of Three Story Mill) but is a more recent.

Unit 6: Engineers Shop: - See Section 6: Photographs 6a & 6b

A small red brick building once used as an engineer's shop but now used to store a variety of equipment. It is a brick structure with a till roof supported by a wooded roof frame.

Unit 7: Boiler House: See Section 6: Photographs 7a & 7b

A very small building located between Unit 9 (Laundry) and Unit 5 (Offices). It has a brick front wall although both the roof and the rear wall are corrugated plastic panels. Once used to house the boiler – which is no longer present – it currently empty and disused.

Unit 8: Old Canteen: See Section 6: Photographs 8a & 8b

A painted plywood prefabricated building with a tin roof. It was once used as the staff canteen and is now disused.

Unit 9: Laundry: See Section 6: Photographs 9a & 9b

A small building connected to both Units 10 (Old Mill) and Unit 7 (Boiler House). It is an old sandstone building (age unknown) with a tiled roof supported by a wooden roof frame. The internal roof is open to the ceiling (as opposed to being divided into several floors) with the roofing felt visible from the inside.

Once used as the mill laundry is it now used to store and sort large quantities' of second hand textiles.

Unit 10: Old Mill: See Section 6: Photographs 10a & 10b

Although once an older building this was rebuilt in the 1960s after a fire. Although the original stone exterior has been retained the majority of the structure, including the roof, is constructed of corrugated steel panels supported by an internal steel frame.

Units 11 & 11a: New Rear Shed See Section 6: Photographs 11a & 11b

A large building constructed in the 1980s, it is constructed of brick and corrugated steel panels, including the roof, supported by an internal steel frame. There are high levels of noise and vibrations through the day and late into the night.

House: See Section 6: Photographs 12a & 12b

A two story, 3 bedroom house constructed in the 1800's set in own grounds and divided from the main mill complex by a fence surrounding a small garden.

### Site in Context

The site is located in a highly urban area close to the centre of Batley. The immediately surrounding area is predominantly housing of varying different ages (some modern estates and other older streets).

There are several parks and open areas close to the site:

- Hyrstlands Park 80m north. A small recreational park (8ha) with managed playing fields with belts of deciduous trees dividing the playing fields and located along the boundaries and within the park.
- A small area of unnamed woodland (2ha) 200m west.
- The Leeds – Huddersfield railway line is located 650m to the east. This nearest section runs along a wooded embankment.
- The large open expanse of Hanging Heaton Golf Course is located immediately east of the railway line.

There are no direct habitat links (i.e. tree lines, water courses or other features) between the site and these areas.

### **2.4 Outline of the Proposed Development**

The outline planning application is for a change of use from industrial to residential with provision for 33 houses on the site.

The current design is for a mix of housing to include house with two and three stories, three and four bedroom houses and a mix of detached, semi-detached and terraced houses.

This is an outline application only and this design may be subject to change. There is no - please see the relevant planning documents and drawing for details.

## 3 Methodology

### 3.1 Desk Study

The West Yorkshire Bat Group (WYBG) was contacted to request existing records of bats within 2km of the study site.

### 3.2 Site Survey

An ecological walkover was conducted on 19<sup>th</sup> September 2014 to identify potential ecological issues and features of potential ecological interest.

Given the urban location particular attention was given to the presence of controlled species (i.e. Japanese knotweed).

### 3.3 Bats - Initial Scoping Survey

An Initial Daytime Scoping Survey was carried out at on 19<sup>th</sup> September 2014.

#### Buildings - External

Using high quality binoculars, all exterior surfaces of each building were actively searched for features with the potential to allow bats access / egress (small gaps, holes etc.) and direct evidence of bats. Searched areas included:

- The surfaces of external walls and the ground at the foot of the walls.
- The eaves, soffits and exterior surfaces below the eaves / soffits.
- All windows including panes, sills and frames.
- All sheltered areas i.e. corners, behind pipes and areas of accumulated dust and webs.

Evidence for bats was sought mainly in the form of bat droppings although evidence of urine staining on the windows and marks and smoothing beneath potential roost sites was also searched for.

#### Buildings - Internal

The interior of each building was searched. The unconverted roof voids of the House and Offices (Unit 5) and the upper floor / loft of Three Storey Mill (Units 3 & 4) was searched. No other building possessed roof voids or lofts.

A Clulite Clubman high powered torch and powerful LED head torch was used to ensure adequate illumination and a small inspection (dentists) mirror and See-Snake Micro flexible endoscope (7mm camera diameter) was used to view difficult to access gaps and crevice – where these were accessible.

Evidence for bats was sought in the form of dead or live bats, bat droppings, prey remains (discrete piles of insect wings and legs) and scratch marks / smoothing potential roost sites.

#### Trees

There were no trees within the site.

Connectivity

Using publicly available aerial photographs and OS maps to look at the wider landscape, and its connectivity to potentially important foraging areas the site was also considered in terms of its potential value for foraging bats.

Assessment of Potential

The potential of the buildings to support bats roosts and the sites likely value for foraging was considered using the surveyor's considerable experience and training and the criteria outlined in *Appendix 1: Tables 8.1a-c*.

## 4 Results and Evaluation

### 4.1 Desk Study

**Table 4.1:** Bat records within 2km of the site

Roost Records				
Record Type	Species	Location	Distance from site	Record date
Roost	<i>Pipistrellus sp.</i>	Upper road, Batley	130m west	21/06/2005
Roost	<i>Not identified</i>	Healds Rd, Dewsbury	470m west	02/07/2007
Possible roost	<i>Not identified</i>	Oxford Rd, Batley	500m south	21/08/2004
Possible roost	<i>Pipistrellus sp.</i>	Trafalgar Rd, Batley	590m south west	19/10/1997
Maternity roost	<i>Not identified</i>	Boothroyd Lane, Dewsbury	1.2km south	16/07/2002
Roost	<i>Pipistrellus pipistrellus</i>	Occupation Lane, Batley	1.3km north west	07/07/2003
Possible roost	<i>Not identified</i>	Heckmondwike RD, Dewsbury	1.5km south west	03/01/2002
Roost	<i>Not identified</i>	Nook Walk, Dewsbury	1.6km south west	29/07/2004
Possible roost	<i>Pipistrellus sp.</i>	Meadow Bank, Dewsbury	1.8km south west	19/07/2001
Possible roost	<i>Pipistrellus sp.</i>	Lincoln Rd, Dewsbury	1.9km south east	22/08/2006
Other Records				
Casualty	<i>Pipistrellus sp.</i>	Marlborough Terrace, Batley	500m west	22/07/2001
Grounded bat	<i>Pipistrellus sp.</i>	Crakenedge Lane, Batley	730m east	30/08/2005
Injured	<i>Not identified</i>	Mill Lane, Batley	1.2km north east	10/09/2006
In flight	<i>Pipistrellus sp.</i>	Hanging Heaton	1.3km east	01/08/2004
Injured	<i>Not identified</i>	Eskdale Close, Hanging Heaton	1.5km east	07/06/2003
In flight	<i>Pipistrellus pipistrellus</i>	Thornhill Rd, Dewsbury	1.9km south	23/08/2010

## 4.2 Initial Scoping Survey - Bats

See Section 6: Photographs

### Evidence of Bats

No evidence of bats (droppings, staining or feeding remains) or any other indications of either current or historic bat use was observed at any location during the Initial Scoping Survey.

### Assessment of Bat Potential

#### Unit 1: Front Mill, Unit 2: New Mill, Unit 10: Old mill and Unit 11 New Rear Shed

These buildings are all relatively modern structures constructed of brick and corrugated steel / plastic panels and roof panels over internal steel frames.

The exterior and interior walls and floors were easily surveyed and all brick work and pointing appeared to be in good condition with few potential access points for bats observed.

Although some gaps and spaces may be present behind the corrugated steel panels attached to the exterior walls, the suitability of these features for bats is considered very limited due to the fluctuating temperatures and humidity of these spaces.

Furthermore, these structures are all active industrial units with large volumes of noise from air conditioning units, compressed air generators and other assorted light industrial activities continuing throughout the day and late into the night.

*These buildings are considered to have a negligible potential to support bats.*

#### Unit 5: Offices, Unit 6: Engineers Shop, Unit 7: Boiler Room and Unit 8: Canteen

Unit 5: Offices is a stone structure abutting Units 3 & 4: Three Story Mill. All brick work and pointing was intact with no potential access points for bats observed. Although the roof void was lined, all roof tiles and ridge tiles were tight with no lifted or displaced tiles and no cavities or gaps behind the exterior boards supporting the gutters were observed.

Unit 6: Engineers Shop is a low building constructed of red brick with no cavity wall. All brick work and pointing was intact with no potential access points for bats observed. There were no cavities or gaps behind the exterior boards supporting the gutters and all roof tiles were tight with no lifted or displaced tiles observed.

Unit 7: Boiler Room is a small structure located between Unit 3 and Unit 9. It has a corrugated the rear wall and roof are both constructed of corrugated plastic panels with breeze block front wall. All brick work and pointing was intact with no potential access points for bats observed.

Unit 8: Canteen is a disused single story prefabricated structure constructed from plywood and a tin roof. The exterior panels, windows and roof are all intact and the structure is painted and sealed. No potential access points for bats were observed.

*These buildings are considered to have a negligible potential to support bats.*

#### Units 3 & 4: Three Story Mill

This a large, traditional, three story textile mill constructed in 1856 (Unit 3) and the early 1900's (Unit 4). Several sections are in use as light industrial units, other sections used as storage and others – including the entire upper floor – are disused and in a state of disrepair and semi dereliction.

There are many areas of displaced masonry and mortar - on all exterior sides - creating many gaps and crevices potentially leading deeper into the cavity walls.

Gaps are present along the bottom of the exterior boards supporting the gutters, with further areas of missing mortar behind these boards, providing potentially suitable roosting features for bats and / or potentially leading into the cavity walls and internal roof structure.

Many lifted and displaced roof tiles were present with areas of lifted felt and flashing around several dormer windows.

The ceiling panels of the disused upper floor follow the pitch of the roof and several large holes are creating access into the spaces between the ceiling panels and the roof tiles. In addition several of the dormer windows were permanently open creating access into these potential roosting features.

*Although no evidence of bats was observed, given the high number of potential roosting features present this building is considered to have a high potential to support bats.*

#### Unit 9: Laundry

Connected to Unit 10: Old Mill and Unit 7: Boiler Room. The building is older than Unit 10 (which was rebuilt in the 1960s after a fire) and is a stone structure with a lined slate roof support by a wooden roof frame. It is no longer used as a laundry but used to store large quantities of second hand clothes before they are processed.

There are several areas of displaced masonry and mortar along the upper wall, several missing bricks at the top of the wall and some gaps present along the bottom of the exterior boards supporting the gutters. These features may provide suitable roosting features for bats and / or potentially lead into the cavity walls and internal roof structure.

*Although no evidence of bats was observed, several features were observed that may provide, or lead to, potential roosting features. This building is considered to have a moderate potential to support bats.*

### House

This is a two story, three bedroom house located in its own grounds within the mill complex. The exterior walls were easily surveyed and all brick work and pointing appeared to be in good condition with few potential access points for bats observed.

The ridge tiles and western rake edges appeared to have been recently re-pointed although there were several gaps between the stone roof tiles at the east rake edge and on the north and south sides of the roof.

The roof void was unconverted and unlined with the tiles back pointed from within.

It is considered highly likely that, if a large or regularly used bat roost was present in this buildings evidence of bats would have been observed.

*This building is therefore considered to have a low potential to support bats.*

### **4.3 Breeding Birds**

No evidence of breeding birds was observed during the surveys. However, it is likely that birds may nest within the gaps and crevices caused by displaced masonry in Units 3 & 4: Three Story Mill.

### **4.4 Japanese Knotweed**

*See Figure 1: Site Plan*

A mature and established growth of Japanese knotweed *Fallopia japonica*<sup>1</sup> is present along the entire south and east boundaries of the mill complex.

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<sup>1</sup> Listed on Schedule 9 of the Wildlife & Countryside Act 1981

## 5 Impact Assessment & Recommendations

### 5.1 Impact Assessment – in the Absence of Mitigation

#### Overview

The survey site is an active industrial site located in a densely populated and highly urban part of Batley. The activities on site create high levels of noise, dust and disturbance.

There are no semi-natural or ornamental habitats – other than stands of Japanese knotweed along the site boundaries – within or adjacent to the site and it is ecologically and geographically isolated from any designated sites, reserves or areas of semi – natural or artificial habitats.

*The survey site is therefore considered to have a very low ecological value overall and the overall ecological impacts of the proposed development are considered to be negligible.*

#### Japanese Knotweed

Japanese knotweed is a highly invasive species and, in the absence of management and control, the proposed development may cause the uncontrolled spread of this species - potentially at locations remote from the site (e.g. by the spread of rhizomes on wheels, boots, and uncontrolled movement of contaminated soil).

*The spread of this species into semi-natural areas, particularly river banks, has the potential to cause long term and major ecological impacts.*

#### Breeding Birds

No evidence of breeding birds was observed during the surveys. However, Units 3 & 4: Three Story Mill was considered to have the potential to support nests of common species such as pigeons, house sparrows and starlings in the gaps and crevices created by displaced masonry and mortar.

*However, given the location and ecological isolation of the site, it is considered unlikely to support more notable species, such as swifts *Apus apus*, and the potential impacts in regard to birds is therefore considered to be low.*

## Bats

No evidence of bats was observed during the Initial Scoping Survey and the majority of the buildings were considered to have a negligible potential to support bats.

However, given the high number of potential roosting features, Units 3 & 4: Three Story Mill was considered to have a high potential to support a bat roost, Unit 9: Laundry was considered to have a moderate potential to support bats and the House was considered to have a low potential to support bats.

Although it is considered likely that evidence of a large maternity roost of a highly social species (i.e. Soprano pipistrelle *Pipistrellus pygmaeus*) would have been observed, evidence of less communal species, which tend to congregate in smaller roosts (i.e. brown long eared bats *Plecotus auritus* and many *Myotis* species), may have been missed, especially in Three Story Mill.

*The site is considered unlikely to support rare or geographically restricted species – due to the location and ecological isolation, but does have the potential to support smaller roosts of common species. The potential scale of impacts is therefore considered to be medium at most.*

## **5.2 Recommendations**

NB: At the time of writing, the application was for an Outline Planning Application and the design had not been finalised or made available to Oatlands Ecology. The recommendations below should therefore be considered indicative with precise details confirmed prior to the Detailed Planning Application.

The National Planning Policy Framework (NPPF) endorses the principle of minimising impacts on biodiversity and providing net gains where possible<sup>2</sup>. In order to satisfy the NPPF the following broad measures are recommended.

## Landscaping

Landscaping features such as hedges and trees should be composed of native species and include early and late flowering and fruiting hedge species such as hawthorn, blackthorn and species that provide cover throughout the winter i.e. wild privet and nectar producing climbing species such as honeysuckle *Lonicera periclymenum* and ivy *Hedera helix* (a late flowering species).

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<sup>2</sup> National Planning Policy Framework. March 2012: Section 7: Conserving and Enhancing the Natural Environment. Available from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

### Japanese knotweed

See *Appendix 2: Relevant Legislation and Figure 1: Site Plan*

Eradication / removal of the Japanese knotweed will be required prior to development.

It is recommended that a specialist consultant is engaged to produce an appropriate Japanese Knotweed Management Plan.

Although Invasive Species Management Plans are site specific and not all methods are suitable for all sites, methods, common procedures for treatment may include:

- Herbicide treatment. This method is most suitable for areas that are unlikely to be disturbed by development. Lack of regrowth is not necessarily evidence of death as regrowth after treatment may be stimulated by soil disturbance and treatment may need to continue once development is completed.
- Combined treatment. Plants are cut and disposed of at licenced landfill. The soil beneath is turned over to a depth of 50cm to stimulate growth producing a high density of stems that are more susceptible to herbicide control.
- Bunds. The creation of shallow bunds (0.5m) of JK contaminated soil may be created on the site. The bunds should be placed on a geotextile layer in an area that is not to be disturbed and treated by herbicide until it is eradicated.
- Deep Burial: Contaminated soil may be buried on site. Regrowth treated at least once with a non-persistent herbicide in order to reduce vigour and buried to a depth of at least 5m and covered with a root barrier membrane and inert material.
- Shallow burial. If it is not feasible to bury to a depth of 5m contaminated soil may be encapsulated in a root barrier membrane cell and buried to a depth of at least 2m. The area should then be covered with a capping layer.

### Breeding Birds

See *Appendix 2: Relevant Legislation*

Although no nests, or other evidence that birds breed within the survey site, was observed during the survey, the site does have the potential to support common species of breeding birds in the gaps and crevices in the masonry of Units 3 & 4: Three Story Mill.

All breeding birds are protected under the Wildlife and Countryside Act 1981 and disturbance to any species of breeding birds is an offence.

Therefore, in order to ensure an offence is not committed work likely to impact potential nesting sites should be conducted outside the breeding season (the breeding season is widely considered to be between the 1<sup>st</sup> March & 30<sup>th</sup> June).

If this is not practicable the developer should ensure no active nests are present before works commence.

### Bats

It is recommended that a suite of bat surveys is carried out at Units 3 & 4: Three Story Mill, Unit 9: Laundry and the House between May and August.

Surveys should be carried out as close as practicable to works commencing (usually within 12 months) or prior to the submission of the Detailed Planning Application.

Mitigation / compensation and the inclusion of biodiversity features relating to bats should be based on the survey results but, at a minimum, may include the provision of integrated bat roosts within several of the properties.

Should a bat roost be present, the appropriate mitigation / compensation measure will be dependent on the species and type of roost and it is likely that either an LPA approved Method Statement or an European Protected Species Mitigation (EPSM) licence will be required prior to works commencing.

## 6 Photographs

**Photo 1a:** Unit 1 Front Mill - exterior



**Photo 1b:** Unit 1 Front Mill - interior



**Photo 2a:** Unit 2 New Mill - exterior



**Photo 2b:** Unit 2 New Mill - interior



**Photo 3a:** Unit 3: Three Story Mill - exterior



**Photo 3b:** Unit 3: Three Story Mill - loft



**Photo 4a:** Unit 4: Three Story Mill - exterior



**Photo 4b:** Unit 4: Three Story Mill - loft



**Photo 5a:** Unit 5: Offices - exterior



**Photo 5b:** Unit 5: Offices – roof void



**Photo 6a:** Unit 6: Engineers Shop - exterior



**Photo 6b:** Unit 6: Engineers Shop - interior



**Photo 7a:** Unit 7: Boiler Room - exterior



**Photo 7b:** Unit 7: Boiler Room - interior



**Photo 8a:** Unit 8: Canteen - exterior



**Photo 8b:** Unit 8: Canteen - exterior



**Photo 9a:** Unit 9: Laundry - exterior



**Photo 9b:** Unit 9: Laundry - interior



**Photo 10a:** Unit 10: Old Mill - exterior



**Photo 10b:** Unit 10: Old Mill - interior



**Photo 11a:** Unit 11: New Rear Shed - exterior



**Photo 11b:** Unit 11: New Rear Shed - interior



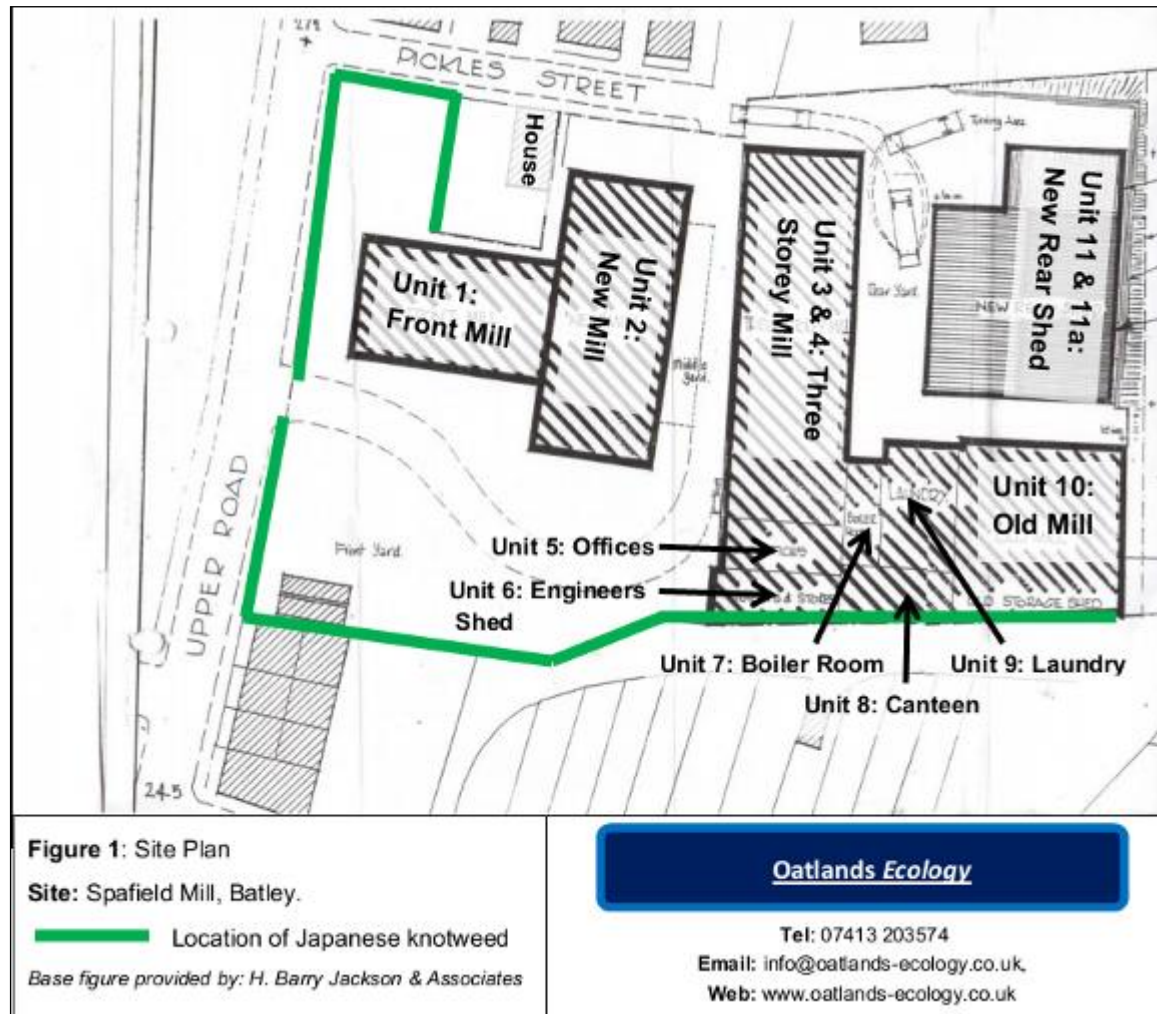
**Photo 12a:** House - exterior



**Photo 12b:** House – roof void




## 7 Figures






## Appendix 1: Factors Affecting the Probable Use of a Site by Bats

**Table 8.1a:** Assessing the Probability of a Building being used by Bats.

Bat Potential	Locational Features
<p>Higher bat roost potential</p>  <p>Negligible bat roost potential</p>	<ul style="list-style-type: none"> <li>• Disused or largely undisturbed</li> <li>• Hanging tiles or wood cladding, esp. on south facing walls</li> <li>• Rural setting</li> <li>• Close to water or woodland</li> <li>• Pre 20<sup>th</sup> century / early 20<sup>th</sup> century construction</li> <li>• Traditional stone or timber construction</li> <li>• Large complex buildings or structures</li> <li>• Suitable foraging areas adjacent or close by</li> <li>• Adjacent commuting corridors / linear features to foraging areas</li> <li>• Gaps between masonry blocks and bricks</li> <li>• Holes in the walls caused by missing bricks and mortar.</li> <li>• Spaces / gaps under the eaves or in soffits</li> <li>• Gaps in the roof tiles and gable ends</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Active industrial setting</li> <li>• Urban setting with few feeding areas</li> <li>• Over 400m from woodland or water</li> <li>• Modern construction of steel and sheet materials</li> <li>• Modern well maintained buildings with few potential access points</li> <li>• Shaded roof (if no other heat source (i.e. boiler) present)</li> <li>• No adjacent vegetation</li> <li>• No suitable foraging areas adjacent or close by</li> <li>• No adjacent commuting corridors / linear features to foraging areas</li> <li>• No / few gaps between masonry</li> <li>• No holes in walls / roof/ soffits/eaves</li> </ul>

Adapted from Table 5.1- Bat Mitigation Guidelines JNCC. 2004 & Table 8.2 - Bat Surveys- Good Practice Guidelines BCT. 2012.

**Table 8.1b:** Factors affecting the probable value of development sites for bats.

Value for bats	Features within or adjacent to the site
<p style="text-align: center;"><b>Lower</b></p>  <p style="text-align: center;"><b>Higher</b></p>	<ul style="list-style-type: none"> <li>• No features likely to be used by bats (roosting, foraging or commuting)</li> <li>• No suitable foraging habitat</li> <li>• Small number of potential roost sites in buildings or trees (i.e. probably not maternity roost or hibernacula).</li> <li>• Isolated foraging habitat not connected to the wider landscape by linear features such as water courses, tree lines etc.</li> <li>• Site is close to known bat roosts.</li> <li>• Bats recorded or observed using an area for foraging or commuting close to a potential roost.</li> <li>• Site is connected with the wider landscape by strong linear features that could be used by commuting bats e.g. river valleys, streams or hedgerows.</li> <li>• High quality habitat for foraging bats e.g. broad leaved woodland, tree lines watercourses and grazed parkland</li> <li>• Buildings or trees with many potential roost sites</li> <li>• Presence of structures with particular significance for roosting bats (e.g. mines, caves, tunnels, ice houses &amp; cellars).</li> </ul>
<p style="text-align: center;"><b>Confirmed Presence</b></p>	<ul style="list-style-type: none"> <li>• Evidence indicates that a building, tree or other structure is used by bats e.g.</li> <li>• Bats seen roosting or observed flying from a roost or freely in the habitat</li> <li>• Droppings, carcasses feeding remains etc. found</li> <li>• Bats heard “chattering” inside the roost on a warm day or at dusk.</li> </ul>

*Adapted from Table 4.2 - Bat Surveys- Good Practice Guidelines (BCT. 2012)*

**Table 8.1c:** Assessing the *potential of trees* to support bats

Bat Potential	Features of trees
High bat roost potential    Negligible bat roost potential	<ul style="list-style-type: none"> <li>• Veteran trees</li> <li>• Large cavities and crevices</li> <li>• Major dead limbs</li> <li>• Heavily ridged and lifting bark</li> <li>• Trunks covered by ivy on mature trees</li> <li>• Very close to hedgerows, woodland or major water courses</li> </ul>
	<ul style="list-style-type: none"> <li>• Mature trees</li> <li>• Small / superficial cavities and crevices</li> <li>• Minor dead limbs but no obvious cavities / lifting bark / splits</li> <li>• Lifting bark on main trunk</li> <li>• Trunks covered by ivy on semi-mature trees / clean trunks.</li> <li>• Some distance from hedgerows, woodland or major water courses</li> </ul>
	<ul style="list-style-type: none"> <li>• Young trees</li> <li>• No visible cavities or crevices.</li> <li>• No major dead limbs</li> <li>• No lifting bark</li> <li>• No ivy on the trunk</li> <li>• Tree isolated, not close to hedgerows, woodland or water courses</li> </ul>

*Adapted from Table 5.1 Bat Mitigation Guidelines. (JNCC 2004).*

## Appendix 2: Relevant Legislation

### Controlled Species

#### Wildlife and Countryside Act 1981

Species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (WCA) Includes Japanese knotweed *Falliopia japonica*.

Under the WCA it is an offence to “*plant or otherwise cause the species to grow in the wild*”. This includes inadvertently causing the species to spread beyond the site boundaries as a result of construction activity i.e. soil movement / disposal off site, spillage of soil or plant material on roads and transport of plant material from the site on wheels / boots etc.

#### Environmental Protection Act (Duty of Care) Regulations 1991

Material containing (or potentially containing) Schedule 9 plants is classed as ‘controlled waste’ and should be regard as contaminated. Such waste must be disposed according to the Environmental Protection Act (Duty of Care) Regulations 1991 at a suitably licensed landfill.

### Breeding Birds

All birds, their nests and eggs are protected by law. Under the current legislation it is an offence, with certain exceptions to:

- Intentionally kill, injure or take any wild bird.
- Intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- Intentionally take or destroy the egg of any wild bird.
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

## **Bats**

All species of bats and their roosts are legally protected in the UK.

Bats are listed as a “*European Protected Species*” on the European Union’s Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (1992) – better known as the Habitats Directive.

The directive is implemented in England and Wales by the Conservation of Habitats and Species Regulations 2010 with some protection also being given under the Wildlife and Countryside Act (WCA) 1981<sup>3</sup>.

Under the combined legislation it is an offence to:

- Deliberately capture, injure or kill a bat.
- Deliberately (or recklessly) damage or destroy a breeding site or resting place (i.e. a roost)
- Deliberately (or recklessly) disturb bats in a way that would impair their ability -
  - i) to survive, breed or to rear or nurture their young
  - ii) to hibernate or migrate
  - iii) to affect significantly the local distribution or abundance of the species

Under the Regulations damage or destruction to a roost is an ‘absolute’ offence (i.e. there are no defences under the law) and roosts are protected whether bats are present or not.

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<sup>3</sup> In Scotland the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (in relation to reserved matters) and the Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007. In Northern Ireland the Conservation (Natural Habitats, &c) Amendment (Northern Ireland) Regulations 2007 is the primary legislation.