BADGER
SURVEY & REPORT
at
Ashbrow Road
Huddersfield
West Yorkshire
HD2 1EX

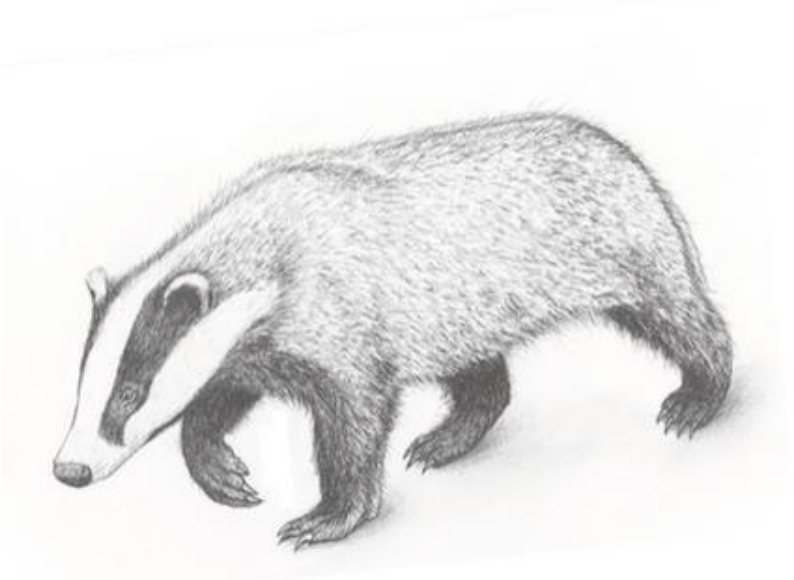
Client:
Keepmoat Limited

Client Address:
Vico Court
Ring Road
Lower Wortley
Leeds
LS12 6AN

Client Contact:
0113 2083400 (Tel)

JCA Ref:
13945c/JB

Date of Report:
10/07/19
Confidential data enclosed



JCA Limited
Arboricultural & Ecological Consultants

Quality Assurance

JCA ref.	Version	Desktop Survey Completed:		Site Surveyed:		Report Completed:		Checked:	
		Date	Name	Date	Name	Date	Name	Date	Name
13945c/ JB	Planning Application	21/06/19	Joe Earnshaw	28/06/19	Jenny Butler	10/07/19	Jenny Butler	10/07/19	Amanda Beck

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development* and the *CIEEM's Code of Professional Conduct*

Disclaimer: Due to the confidential nature of badger records exact locations and grid references as provided by the local records centre have not been included within this report.

Due to the confidential nature of badger records any local record centre data and locations of badger setts and badger activity determined as part of the badger survey should be removed prior to release into the public domain.

JCA Ltd cannot be held liable for data from this report being released into the public domain by third parties.

Risk Assessment Completed	
Bio-security Procedure Completed	
Lone Worker Procedure Completed	

Contents

1. Introduction

1.1 Purpose of the Report

1.1.1 A report is required for **Ashbrow Road,** in order to determine whether badgers are present at the site, and if so what impact the proposed development will have on this species.

1.2 Terms of Reference

1.2.1 I am instructed by **Keepmoat Limited** to visit the site and prepare my findings in a report.

1.2.2 For this purpose I have been supplied with a site map (drawing: 01191A_S_01), and brief details of the proposal.

1.3 Details of Proposed Development

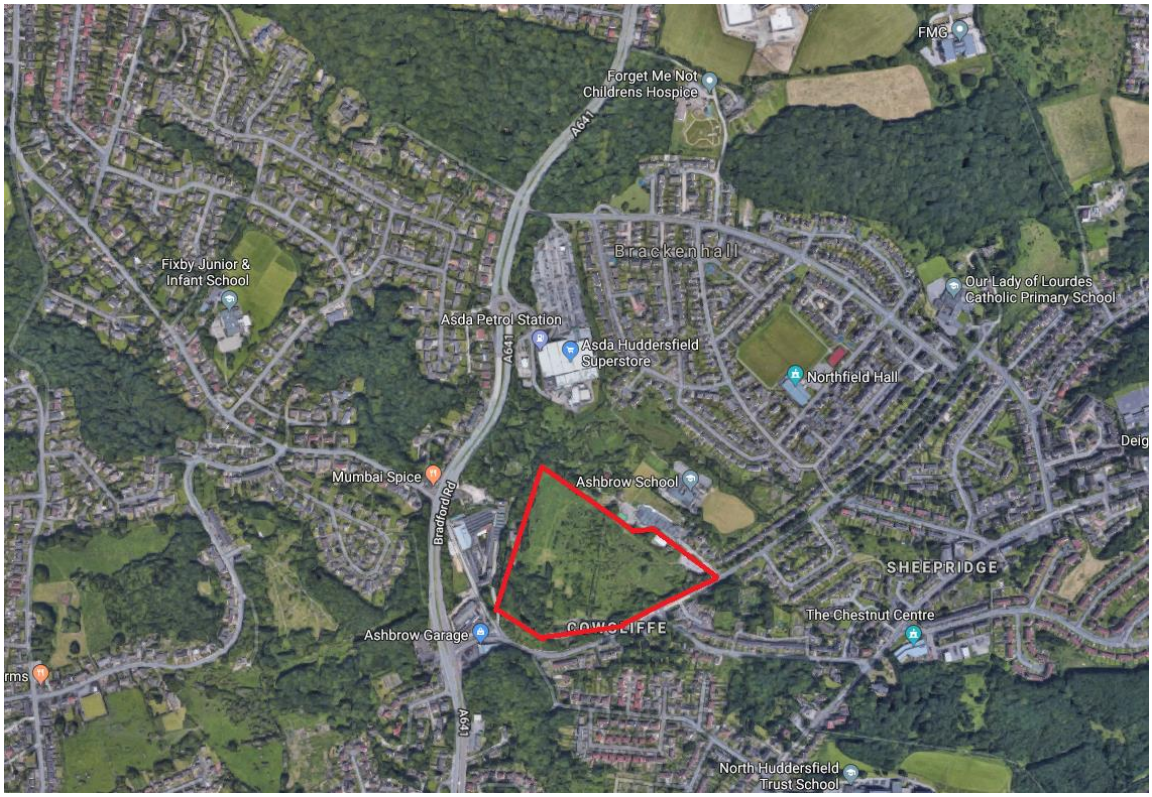
1.3.1 A residential development is proposed on this site comprising of flats, 3 bed houses and 2 bed houses.

1.4 Site Description

1.4.1 **Ashbrow Road** is situated 2.1km north of Huddersfield town centre at grid reference: SE150192.

1.4.2 The site is surrounded by predominantly by residential properties, including a local primary school. There is a wooded area 230m south of the site, with the River Colne 900m southeast of the site.

Figure 1: Google Map image of Ashbrow Road site showing the survey site in relation to the surrounding landscape and habitats. Site boundary outlined in red.



© Google Maps July 2019

2. Badgers and the Law

In the UK Badgers are afforded special protection under the Protection of Badgers Act 1992 (as amended).

Under this piece of legislation it is an offense to:

Wilfully kill, injure or take a badger (or attempt to do so).

Cruelly ill-treat a badger.

Dig for a badger.

Intentionally or recklessly damage or destroy a badger sett or obstruct access to it.

Cause a dog to enter a badger sett.

Disturb a badger when it is occupying a sett.

If it is discovered that development may impact upon a badger sett, a mitigation plan should be devised and a mitigation licence applied for from Natural England.

Disturbance: Section 3(e) of the Protection of Badgers Act 1992 makes it an offence for a person to interfere with a badger sett by disturbing a badger that is occupying the sett. There are two elements to this offence:

There must be an action, capable of disturbing a badger, which amounts to an interference with a sett; and

A badger must be occupying the sett at the time of the disturbance. The latter point is a question of fact i.e. was there or was there not a badger occupying the sett when the alleged offence or action took place? However, what constitutes an act capable of disturbing a badger occupying a sett is more difficult to determine.

The Act does not define either interference or disturbance and we are not aware of any case law on the meaning of section 3(e) of the Act. We therefore have to rely on the ordinary everyday meaning of the words. The Oxford English Dictionary defines “to disturb” as:

To agitate and destroy (quiet etc);

To break up the quiet, tranquillity;

To stir up, trouble, disquiet, to agitate; to unsettle;

To agitate mentally;

To interfere with the settled course of operations.

Disturbance is therefore something less than what might otherwise be considered damage to a sett - this distinction is recognised by the existence of two separate offences in the Act; one where there is damage to a sett and one for disturbance to a badger occupying a sett. However, it is also something more than limited noise or activity near a sett at levels which badgers commonly tolerate, without apparently being disturbed.

Some examples of activities at or near setts that are not considered by Natural England to be likely to cause disturbance to badgers, and therefore would not normally expect to require a licence, include:

Development, or other activities occurring close to badger setts (use of hand tools and/or machinery), where there is no reason to believe that the 'disturbance' will be greater than that which badgers commonly tolerate, and therefore any badger(s) occupying the sett are unlikely to be disturbed;

Vegetation removal (including felling small trees or shrubs) over or adjacent to setts (using hand tools and/or machinery);

Clearing out of ditches/watercourses using machinery and/or hand tools where badger setts are present. Persons involved in activities near setts will need to exercise judgement as to whether their action may or may not cause disturbance to badgers.

3. Badger Ecology

3.1 Badgers are part of the family Mustelidae. The badger is an apex predator in the UK, and can grow up to 1metre in length. Badgers are shy, nocturnal animals that live in underground chambers connected by a network of tunnels known as a sett.

3.2 Habitat: Badgers live mainly in wooded areas and copses. They create extensive underground systems known as setts, usually recognised by the large spoil heaps outside of the entrances. Badgers live in fields, woodlands and hedgerows and occasionally live in old mines and abandoned structures. Most setts are in steeply sloping areas, such as raised hedgerows and banks. Badgers forage on areas adjacent to setts, preferring a range of foraging habitats including golf courses, playing fields and agricultural land. Badgers tend to avoid heavy clay based soils due to the high moisture levels of these soils.

3.3 Social Structure and Territory: In the UK badgers live in mixed-sex groups of approximately four to eight animals in setts. A social group living together in the same sett is also known as a clan or, occasionally, a cete. Each clan will have several setts throughout their territory and will use them at different times. A main sett is the hub of the activity and is normally occupied all year round. Several other setts will be dotted around the clan's territory and are used for different reasons - occasionally as a bolt-hole or used by younger members moving out of the social group.

3.4 Types of sett: A range of sett types can be found within the territory of a badger group. Sett types used by badgers are:

- **Main Sett:** Main setts can hold any number of badgers, and usually contain multiple entrances, covering an area from 20 to 100metres. Some larger setts can be up to 100 years old. Main setts are used by the same social group continually and are well maintained and enlarged to accommodate the family group. Well-worn paths, and freshly dug spoil banks are evidence of a main sett.

- **Subsidiary Sett:** These are normally close to the main sett, but do not connect well to other setts and paths are not as obvious. These setts are not in constant use and do not connect to the main sett.

- **Annexe Sett:** These connect to a main sett, but are not always in constant use. Well-worn paths and tracks can be seen from a few large entryways.

- **Outliers:** These are single hole setts with short tunnel lengths occasionally in use, usually as a bolthole temporary resting area or for foraging purposes

only.

3.5 Breeding: Cubs are normally born in February, and the average number in a litter is three, although the range can be from one to five. Cubs emerge from their underground setts after 8 to 10 weeks, and will begin to explore the sett area from May onwards.

3.6 Diet: The badger's diet largely consists of earthworms, insects' cereals and fruits. As they are omnivorous they also eat birds and small mammals. The diet of a badger varies seasonally.

3.7 Signs of badger activity: Badgers are large mammals, living in social, family groups. Signs of badgers include: setts, latrines, spoil heaps outside setts, guard hairs (particularly on bramble or fencing), squeeze points where fences have been push up for badgers to enter/exit, or gaps in hedgerows where badgers have been passing through. Badgers also leave bedding piles near setts, this can be either fresh or old bedding and is mainly comprised of straw, grasses, fallen leaves and bracken. Claw marks on tree roots and trunks, well-worn paths and tracks and paw prints are also signs to look for when surveying for evidence of badger activity.

4. Methodology

4.1 Desktop Study Methodology

4.1.1 A desktop study has been undertaken in order to obtain all relevant records of badgers within a 2km radius of the site.

4.1.2 A desktop study was undertaken on 1st September 2017 in order to obtain any relevant ecological records that may be present within a 2km radius of the site. This includes protected and notable species records, as well as nature conservation designations. For this information, West Yorkshire Ecology Centre was contacted.

4.1.3 The Multi-Agency Geographic Information for the Countryside (MAGIC) website was used to locate any designated sites, such as Local Nature Reserves (LNR), Special Areas of Conservation (SAC) or Sites of Special Scientific Interest (SSSI) that may be present within 2km of the survey site.

4.2 Site Assessment Methodology

4.2.1 The site was visited during daylight hours by an ecologist experienced in conducting badger surveys. The survey involved walking over the entire site and visually assessing the site's potential for supporting badgers. This included assessing the habitat types present on and around the site, as well as looking for evidence of badger activity. A radius of up to 1km around the site was similarly assessed for its potential to support this species. Signs of Badger activity include:

- Badger Setts (Main, Annex, Subsidiary, Outlier).
- Footprints and paths.
- Latrines.
- Foraging signs (snuffle holes).
- Badger guard hairs.
- Claw marks.

4.2.2 All consultants are equipped with the following items to ensure an accurate assessment of each survey site; a printed site map, camera, binoculars, compass and field identification guides.

5. Results

5.1 Desktop Study Results

5.1.1 Local Data Centre Records: West Yorkshire Ecology Service has been commissioned to provide the records held for badgers within a 2km radius of the survey site. The results have been summarised below. It should be noted that the absence of records should not be taken as confirmation that badgers are absent from the search area.

Note: Due to the confidential nature of badger records exact locations/ grid references have been omitted from this report for all badger data obtained within 2km of the site from West Yorkshire Ecology Service.

Due to the confidential nature of badger records any local record centre data and locations of badger setts and badger activity determined as part of the badger survey should be removed prior to release into the public domain.

5.1.2 West Yorkshire Ecology Service Records: The West Yorkshire Ecology records revealed one record of badger activity within 2km of the site boundary. This record consisted of one unclassified sett in 2009 1860m east-southeast of the site boundary.

5.1.3 The data search revealed no historic or recent records of badger activity within 500m of the site.

Statutory Nature Conservation sites

5.1.4 There are no statutory nature conservation sites within the boundary of the site.

5.1.5 The search revealed no designated conservation sites within 2km of the site.

Non-Statutory Nature Conservation Sites

5.1.6 There are no non-statutorily designated nature conservation sites within the boundary of the site.

5.1.7 The search revealed five non-statutory conservation sites within 2km of the site, which can be seen in **Table 1**.

Name	Designation	Description	Distance From Site
Sir John Ramsden Canal	Local Wildlife Site (LWS) & Site of Scientific Interest (SSI)	This canal supports a range of aquatic and swamp communities, typical of slow-moving water. Although most of the communities are species poor, they contain a representative range which includes the regionally rare *Ceratophyllum demersum* and *Alisma lanceolatum.* This site holds the county's largest population of this latter species. In addition, the site is of considerable importance for the presence of the nationally rare *Luronium natans*. This is an internationally protected species under Annexe 1 of the Berne Convention for Conservation and Britain holds the major population of this species in the canal networks of Wales, Cheshire, Lancashire and West Yorkshire.	1km Southeast
Bradley Park Woods	Local Wildlife Site (LWS)	These two small areas of woodland within the site meet the Wd5 criteria for their bluebell coverage. Trees within these areas of woodland are mature and comprise mainly oak, with some mature ash. Both areas of woodland comprise a good amount of standing and fallen deadwood. Other ancient woodland indicator field layer species are present.	1.9km North
Grimescar Wood	Local Wildlife Site (LWS) &Site of Wildlife Significance (SWS)	The woodland contains a good density cover of bluebell and meets Criteria Wd5.	1.5km West
Bradley Park Golf Course	Site of Wildlife Significance (SWS)	Bradley Park Golf Course is a large active golf course composed of amenity grassland with pockets of broadleaved plantation, small water bodies (ponds and ditches), a strip of ancient semi-natural woodland and a large open area of semi improved neutral grassland. The semi-natural broadleaved woodland lies along the north-western boundary of the site. Bradley Wood is an area of plantation ancient woodland which lies to the north of the golf course, bisected by the M62. Clifton Interchange LWS stands 900 m northeast of the site in Calderdale.	1.9km North
Roundhill	Local Geological Site (LGS)	Geologically, Round Hill is an outlier of Greenmoor Rock (formerly thought to be the Elland Flags, but now recognized as being of different origin) lying on older sediments. The present structure of Round Hill is a testament to the processes of weathering and erosion slowly shaping the rock over geological time.	1.9km Northwest

5.1.8 The site falls within the Kirklees Wildlife Habitat Network Area.

5.2 Survey Conditions

5.2.1 The site was surveyed on 28/06/19 by Jenny Butler *AMIEnvSc BSc (Hons)*.

5.2.2 The weather conditions during this survey were can be seen in **Table 2** below:

Table 2: Weather conditions during the survey

Surveyor	Temperature	Humidity	Wind Speed/Direction	Cloud Cover	Precipitation
28/06/19	21°C	85%	8mph ESE	0%	None

5.2.3 Limitations: The site was surveyed during a time of year when vegetation growth is at its peak. Some areas of the site were difficult to navigate due to the height of the vegetation, however the woodland areas of the site, steep embankments and nearby hedgerows were surveyed for setts, this limitation may have reduced the likelihood of spotting tracks and field signs however did not impact on the search for badger setts (active or inactive).

5.3 Site Assessment Results

5.3.1 The site is an area of disused ground comprising of grassland, tall ruderals, broad leaved woodland, scattered broad leaved trees, hedgerows and coniferous trees. There are numerous paths running through the site, with a public footpath running along the eastern boundary line.

5.3.2 Badger setts: No badger setts were found to be present on site or within 50m of the site boundary.

5.3.3 Badger Paths/Tracks: Large mammal tracks were noted along the north eastern site boundary, and within 10m of the northern site boundary line.

5.3.4 Badger Foraging Signs: Foraging activity was noted within the woodland bordering the school to the north of the site boundary.

5.3.5 Latrines: No badger latrine pits were found on site or within 50m of the site boundary.

Due to the confidential nature of badger records any local record centre data and locations of badger setts and badger activity determined as part of the badger survey should be removed prior to release into the public domain.

6. Conclusions and Recommendations

6.1.1 After conducting a thorough site investigation and a detailed Desktop Study, JCA Ltd. Consider that the site at **Ashbrow Road** does not contain any badger setts (active or inactive). Some evidence of badger activity (tracks and foraging signs) were recorded along the northern site boundary line, and to the north of the site, within 10m of the site boundary.

6.1.2 Although badger foraging activity was recorded on site and within 50m of the site boundary the activity was low level, with no distinctive or well worn paths/tracks recorded within 50m of the site. Therefore the site is unlikely to act as a key foraging habitat for local badger groups and populations.

6.1.3 No badger setts were found to be present within the site boundary line or within 50m of the site. As no badger setts were found to be present a badger mitigation licence will not be required in order to proceed with the proposed dvelopment works.

6.1.4 Badgers are using some sections of the site, as can bee seen in **Appendix 1: Badger Site Plan.** When construction works take place the following measures are to be implemented:

- Chemicals are to be stored and covered between the hours of sunset and sunrise to minimise the risk of badgers coming into contact with potentially harmful substances.

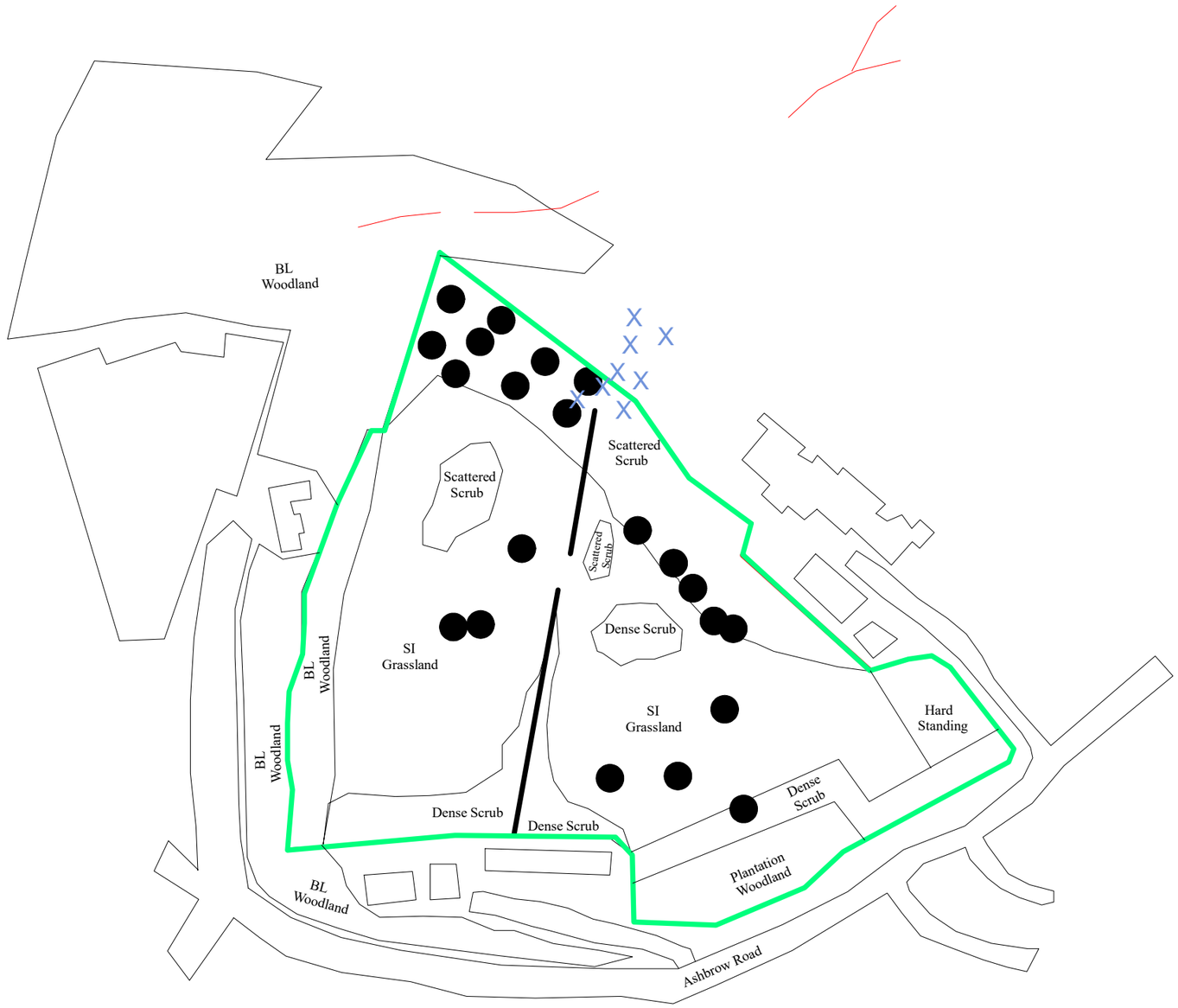
- Any holes, trenches or pits dug must either be covered over securely between the hours of sunset and sunrise or, where trenches cannot be covered over mammal ramps installed to ensure mammals do not get trapped in open holes, pits or trenches on site.

- If badgers are seen to be using the site during the construction works phase this must be logged, and the site Ecologist contacted for further guidance and advice.

- All staff and contractors must have access to the contact name and details of the site Ecologist should issues arise on site relating to badgers.

Appendices

Appendix 1: Badger Survey Plan



Appendix 1: Badger Survey Plan

Address: Ashbrow Road, Huddersfield, West Yorkshire, HD2 1EX.

JCA Ref: 13945c/JB

NOT TO SCALE

KEY

- Foraging Signs
- Tracks/Paths
- Boundary Line
- Trees

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Appendix 2: Photographic Evidence

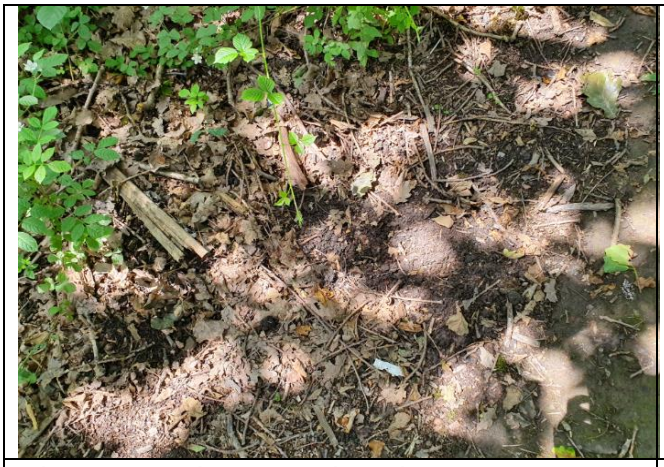


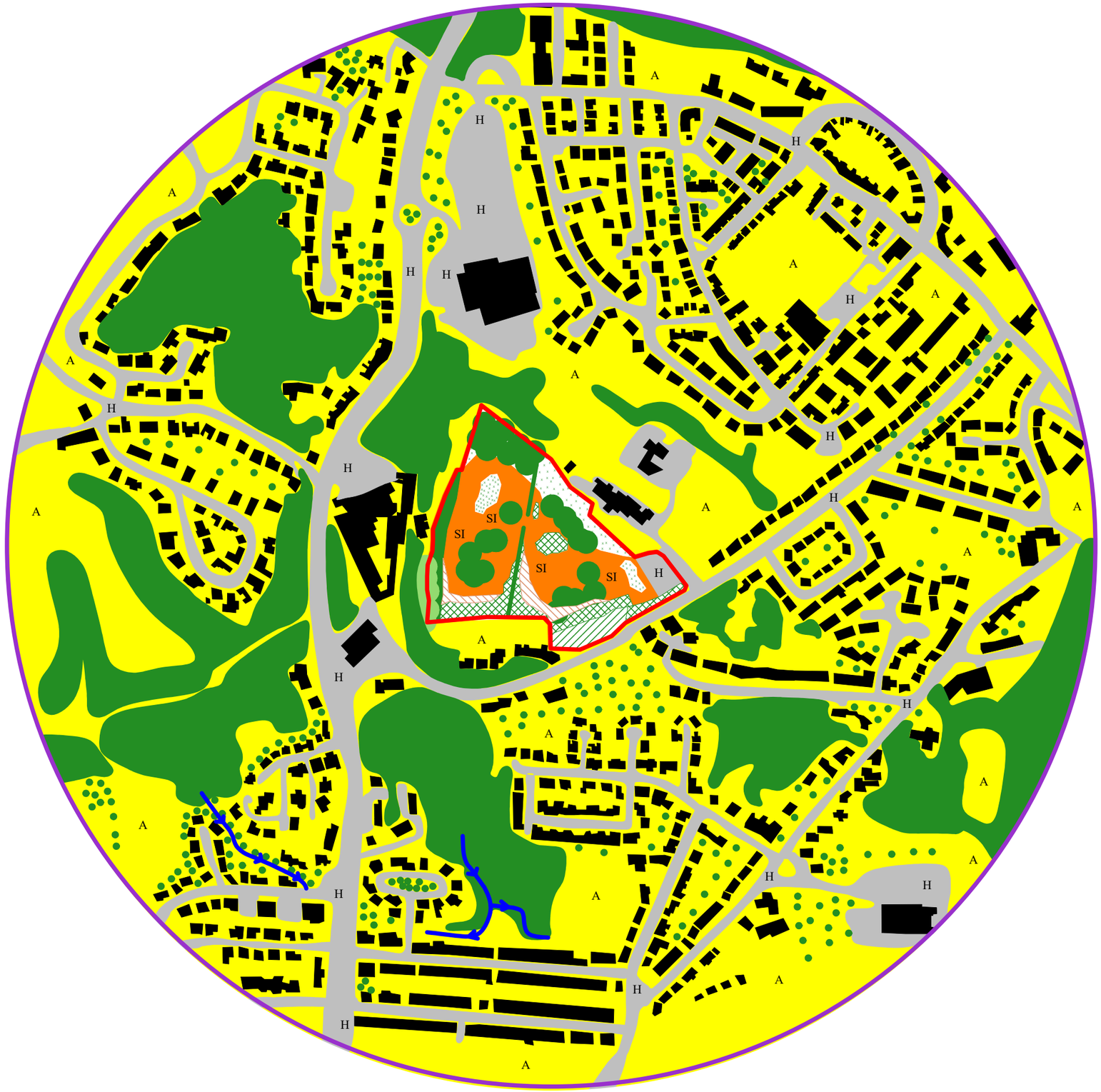
Photo 1: Badger foraging signs

Photo 2: Large mammal track

Photo 3: Large mammal track

Appendix 3: Site Boundary with 500m Zone

Figure 1: Google Maps image of Ashbrow Road (A), showing the survey site in relation to the surrounding landscape and habitats.



Appendix 3: Habitats within 500m

Address: Ashbrow Road,
Huddersfield, West Yorkshire,
HD2 1EX.
JCA Ref: 13945c/JB

NOT TO SCALE	PAPER SIZE : A3

KEY

	Broad-leaved woodland (Plantation)
	Broad-leaved woodland (Semi-natural)
	Dense/continuous scrub
H	Hard standing
	Intact hedge (Species-poor)
SI	Neutral grassland (Semi-improved)
	Scattered broad-leaved trees
	Scattered scrub
	Tall ruderal
A	Amenity grassland
	Running water
	Proposed development boundary
	500m of site boundary

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Appendix 2: Photographic Evidence

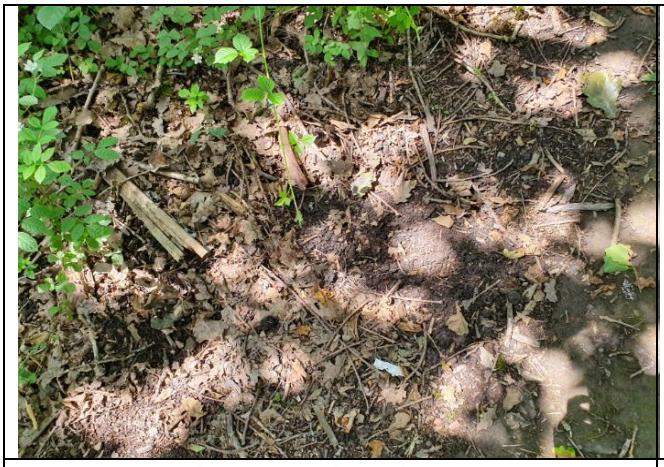

Photo 1: Badger foraging signs

Photo 2: Large mammal track

Photo 3: Large mammal track

Appendix 3: Site Boundary with 500m Zone

Figure 1: Google Maps image of Ashbrow Road (A), showing the survey site in relation to the surrounding landscape and habitats.

Appendix 4: References

Badger Trust. <http://www.badger.org.uk/Content/Home.asp>

Google Maps. **<**http://maps.google.co.uk/**>**

Multiple-Agency Geographic Information for the Countryside (MAGIC). <http://www.magic.gov.uk/>

National Biodiversity Network (NBN) Gateway. <data.nbn.org.uk>

Natural England. < http://www.naturalengland.org.uk/>

Nature on the Map. Natural England. <www.natureonthemap.org.uk>

Relevant Legislation:

Wildlife and Countryside Act 1981 <http://jncc.defra.gov.uk/page-3614>

The Conservation of Habitats and Species Regulations 2017
<https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

Countryside and Rights of Way Act 2000
<http://www.legislation.gov.uk/ukpga/2000/37/pdfs/ukpga_20000037_en.pdf?view=interweave>

Protection of Badger Act 1992 <http://www.legislation.gov.uk/ukpga/1992/51/contents>

Appendix 5: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking
F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor.
Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Director

Toby Thwaites
BSc (Hons), HND (Arboriculture).
Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Consulting Staff: Ecology

David Bodenham, Consultant Ecologist
BSc Ind (Hons) Zoology, MSc Biodiversity and Conservation.
David joined JCA as an addition to the expanding ecology department. An advocate of evidence based conservation, he studied Zoology (Ind) at University and moved onto an MSc in Biodiversity and Conservation where he gained the myriad of skills needed as an ecologist. With over 7 years of experience, David specialises in bat and amphibian ecology. David holds Natural England GCN and bat licences and a CSCS card.

Jenny Butler, Consultant Ecologist
AMIEnvSc, BSc (Hons) Environmental Science.
Jenny joined JCA's ecology department in 2017, bringing with her a bachelor degree in Environmental Science from Bangor University. Jenny has previously worked as an Environmental Consultant for an Agri-Environment company and as a freelance ecological consultant. Jenny specialises in great crested newt and bat ecology. She holds level 2 Natural England, Welsh and Scottish bat licences, level 2 Natural England, Welsh and Scottish Great Crested Newt licences and is currently working towards her Hazel Dormouse and Natterjack Toad licences. Jenny is a member of the Bat Conservation Trust, Botanical Society for Britain and Ireland (BSBI) and the Arboricultural Association. Jenny is an active volunteer for the West Yorkshire, South Lancashire and Clwyd bat groups, as well as a volunteer for the Shropshire Dormouse Monitors. Jenny holds a CSCS Card and is DBS checked.

Amanda Beck, Ecological Officer
Cert/He in Field Ecology, Diploma Field and Conservation Ecology, CIEEM member.
Amanda joined JCA's ecology department in 2018, previously working as a freelance Ecological Consultant in North Wales and as a trainee Ecologist in South Wales. She has a background surveying for botanical, amphibians, birds, terrestrial and marine mammals along with small mammal trapping and invertebrate research work on SSSI sites. She has practical experience in habitat management and creation while working as a volunteer for North Wales Wildlife Trust and currently volunteers with Yorkshire Wildlife Trust. She is a member of the Butterfly Conservation Trust, Bat Conservation Trust, Clwyd Bat Group and the British Hedgehog Preservation Society. Amanda is DBS checked and holds a Natural England level 1 bat licence.

Joe Earnshaw, **Trainee Ecologist**
BSc (Hons), MSc Biodiversity and Conservation.
Joe joined the ecology department of JCA in 2018 after taking part in JCA's student training programme. He initially obtained a bachelor degree in Animal Management from Askham Bryan College, York. He has since furthered his education and brings to the company an MSc in Biodiversity and Conservation from the University of Leeds. Joe has expertise in aquatic invasive species identification and control.

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed

.....

Jenny Butler

AMIEnvSc, BSc (Hons) Environmental Science

10/07/19

Proofread by

.....

Amanda Beck

Cert/He in Field Ecology, Diploma Field and Conservation Ecology, CIEEM member.

10/07/19

For and on behalf of ***JCA Ltd***

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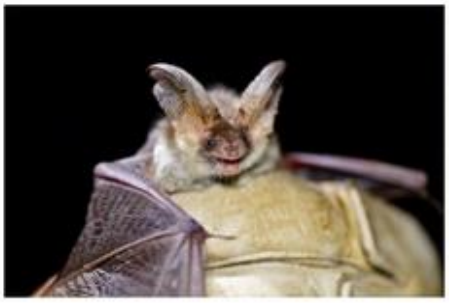

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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