PRELIMINARY ECOLOGICAL APPRAISAL

JAMES ALPE LIMITED
LINCOLN WAY
CLITHEROE
LANCASHIRE

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A report for

Avalon Chartered Town Planning

On behalf of

James Alpe Limited
Lincoln Way
Clitheroe
Lancashire
BB7 1QD

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PART 1: INTRODUCTION:

1.1 REASONS FOR SURVEY:

PENNINE *Ecological* have been commissioned by Avalon Chartered Town Planning on behalf of the site owners, James Alpe Limited, to undertake a Preliminary Ecological Appraisal of land at Lincoln Way, Clitheroe, Lancashire.

The study is required in association with a proposal to construct a new extension to the existing workshop facilities.

The study includes the following elements:

- Extended Phase 1 Habitat Survey.
- Water Vole Survey.
- Otter Survey.
- Preliminary Bat Roost Evaluation.
- Badger Survey.
- Evaluation of breeding bird and great crested newt potential.

The study also includes a full evaluation of the ecological significance of the survey and recommendations/precautions where appropriate.

The surveys were undertaken by Ian Ryding a surveyor with over 30 years experience in a wide range of ecological survey and assessment.

1.2 SITE LOCATION:

The site is located at the junction of Lincoln Way with Up Brooks, Clitheroe, BB7 1NX.

Central grid reference SD 7517 4220.

The location of the study area is shown on Map 1 in the Appendix.

1.3 SURVEY METHODOLOGY:

The methodologies where specific surveys were applied are outlined below.

1.3.1 Extended Phase 1 Habitat Survey:

An Extended Phase 1 Habitat Survey *(Nature Conservancy Council 1990)* of the survey area was undertaken on 10th October 2018. The site's habitats were fully mapped and higher vascular plant species (where present) were recorded and given abundance values according to the standard DAFOR scale where:

D = Dominant
A = Abundant
F = Frequent
O = Occasional
R = Rare

Where appropriate the above values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

1.3.2 Otter Survey:

The otter survey was undertaken on the 10th October 2018 following the standard methodology outlined in *The New Rivers & Wildlife Handbook*. RSPB (2001)

The survey included standard searches for spraint, footprints, couches/hovers and holts on the river section 30m upstream of Up Brooks, and 100m downstream of Lincoln Way. Searches for holts and couches/hovers (lying up spots) were also undertaken within the site itself.

The survey was undertaken during the optimum period for otter survey.

1.3.3 Water Vole Survey:

The water vole survey was undertaken on the 10th October 2018 following the methodology outlined in the *Water Vole Mitigation Handbook.* Strachan et al (2016).

The survey included standard searches for animals, burrows, latrines, feeding stations and runs on the ditch on the site.

The river section 30m upstream of Up Brooks and and 100m downstream of Lincoln Way was surveyed. Upstream of Up Brooks the survey was done by binoculars whilst standing on the bridge due to lack of access.

The survey was undertaken at the end of the optimum period for water vole survey.

1.3.4 Preliminary Bat Roost Evaluation:

The preliminary bat roost survey was undertaken on the 10th October 2018 following the methodology outlined in *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* Collins, J. Bat Conservation Trust (2016)

The survey included standard non-intrusive searches for potential roosts in trees on the site, and the elevations of buildings affected by the proposals.

The inspection included the following:

- Searches for holes/fissures with roost potential in trees.
- Searches for features with roost potential in buildings.
- Searches for evidence of bat use including grease/urine staining around holes in trees and buildings and bat droppings on walls and on tree bark at the base of trees.

1.3.5 Badger Survey:

The badger survey focused on land directly affected by the proposed development and land within 50m of the site where accessible but excluding garden land off Up Brooks and industrial hardstanding.

The survey used standard techniques for establishing the use of the site by badger, and includes searches for evidence of badgers including:

- Setts

- Pathways
- Footprints
- Latrines
- Foraging areas
- Scratching posts

1.3.6 Other Species:

During the survey, observations relating to the potential presence of great crested newt (GCN) in the local area was also evaluated.

The site was also evaluated in respect of breeding birds.

1.3.7 Surveyor Experience:

The surveyor and author of this report, Ian Ryding, has over 30 years experience in ecological survey and evaluation. Key skills include the following.

- Extended Phase 1 Habitat Survey and National Vegetation Classification Survey.
- Highly proficient field botanist, including some difficult plant groups.
- Breeding and wintering bird survey.
- Mammal surveys including surveys for badger, water vole*, otter*, brown hare and preliminary bat roost survey.

*Over 250km of river reaches surveyed in England.

- Extensive experience in great crested newt (GCN) survey, evaluation, licensing and mitigation. Natural England Class Licence WML-CL08 held.
- Ecological Evaluation and Impact Assessments in association with large scale commercial development and civil engineering.

1.4 SURVEY CONSTRAINTS:

The water vole survey was undertaken at the end of the optimum period for survey and access to the river section upstream of Up Brooks bridge was restricted. The constraint here is considered to be ‘moderate’.

Leaf cover on some of the trees restricted the preliminary bat roost survey slightly, and the constraint is considered to be ‘low-moderate’.

There were no other significant constraints to survey.

PART 2 SURVEY RESULTS:

2.1 EXECUTIVE SUMMARY:

- There are three statutory sites (SSSI/SPA/SAC) within 2km of the site, Salthill and Bellman Park Quarries (154m), Coplow Quarry (845m) and Clitheroe Knoll Reefs (1.6km). Salthill Quarry is also a Local Nature Reserve (LNR).
- The site fails to meet any of the habitat guidelines for selection in respect of Biological Heritage Sites (BHS).
- There is one BHS, Salthill Quarry, within 250m and fourteen other BHSs within 2km.
- The area affected by the proposal is composed of small areas of planted woodland, scrub, tall ruderal herb and a short section of Mearley Brook.
- The habitats affected by the proposal are of 'local' (i.e. Parish) value only.
- Rivers (Mearley Brook) are Section 41 Habitats of Principal Importance in England (NERC) Act 2006.
- The survey revealed no evidence of water vole occupation on Mearley Brook.
- The survey revealed that Mearley Brook forms part of the territorial range of at least one otter.
- There are no ponds capable of supporting GCN within 300m of the site.
- The bat survey of the trees and shrubs revealed 'negligible' bat roost potential only but a ‘low-moderate’ constraint applied locally.
- The buildings have ‘negligible’ bat roost potential.
- Small areas of potential bat foraging habitat are present on the site.
- The Mearley Brook corridor provides a potentially valuable commuting route for bats.
- Small areas of potential bat foraging will be lost as a result of the proposals which can be partially mitigated by the retention of woody vegetation and lighting controls.
- Major impacts on potential bat commuting routes can be avoided by retention of woody vegetation and appropriate lighting controls.
- Nesting bird habitat on the site is limited and the site is considered capable of supporting low numbers of common birds of ‘local’ (i.e. Parish) value.
- The survey of the site and adjacent land revealed no evidence of use of the site by badger.
- LeRN data revealed that Mearley Brook supports bullhead and brown/sea trout.

2.2 DESK BASED STUDY:

A request was made to Lancashire Environmental Record Network (LERN) to obtain details of any non-statutory sites (BHS/LWS) or biological records within 2km of the site. The records provided by LeRN are shown on Map 3 in the appendix.

The Multi Agency Geographical Information Centre www.magic.gov.uk was referred to in respect of statutory sites.

Table 1: Desk Study Data:	
Statutory Sites:	
On site:	**Off site:**
None.	Salthill and Bellman Park Quarries SSSI is located approximately 154m from the site at its nearest point. Coplow Quarry SSSI is located approximately 845m from the site at its nearest point. Clitheroe Knoll Reefs is located approximately 1.6km from the site at its nearest point. Salthill Quarry is also an LNR.
Non-Statutory Sites:	
On site:	**Off site:**
None	Within 250m: Salthill Quarry BHS 74SE01 Within 500m: Salthill Quarry BHS Between 500m-1km: Bellman Park Quarry BHS 74SE04, Coplow Quarry and Pimlico Road Grasslands BHS 74SE02 Between 1km-2km: Bellman Park Quarry BHS, Coplow Quarry and Pimlico Road Grasslands BHS, Bellman Farm Marsh BHS, Worston Common BHS, Primrose Lodge BHS, Clitheroe Castle Knoll BHS, Crosshill Quarry BHS, Sherburn Wood BHS, Bog Bank BHS, Dog House Wood BHS, A59 Road Cutting, Worston to Chatburn BHS, Worsaw Hill, Warren Wood, Crow Hill and The Ridge BHS, River Ribble from London Road in the West to the County Boundary in the East BHS.
Other Site Designations:	
On site:	**Off site:**
None.	Cross Hill Quarry is also a Local Geodiversity Site.
Protected Species:	
On site:	**Off site:**
None.	Within 250m: Starling (2008, 2009) Between 250m-500m: Starling (2008, 2009, 2017) Brown trout/Sea trout (2011), Bullhead (2011), Common pipistrelle (2012), Song thrush (2009), Lapwing (1992), House sparrow (2009) Between 500m-2km: The species are not specifically related to the site and are considered to be beyond the sphere of influence of the proposal, therefore they are not reproduced here.
Other Species:	
On site:	**Off site:**
None.	Within 500m: Columbine, Spiked sedge, Wild pansy, Japanese knotweed (Approx. 30m NE of site on Up Brooks verge SD 7527 4222), Yellow rattle, Speckled wood and Ringlet. Beyond 500m the species are well beyond the sphere of influence of the proposal, therefore they are not reproduced here

2.3 EXTENDED PHASE 1 HABITAT SURVEY:

2.3.1 General Description:

The site of the proposed development lies on the southern edge of the James Alpe site and includes land either side of Mearley Brook.

The land is partly wooded by a largely immature broad-leaved plantation, with other areas composed of tall ruderal herb and dense and scattered scrub.

Mearley Brook runs through the centre of the site.

Whilst there is no formal right of access, the presence of informal pathways indicate that the unfenced areas of the site are accessible by the public.

Lincoln Way and Up Brooks form the western and southern boundaries of the site respectively.

The site is located within a large industrial estate on the eastern fringe of Clitheroe.

2.3.2 Extended Phase 1 Habitat Survey Target Notes:

Survey locations, Target Notes and the proposed working area locations are shown on Map 1 in the Appendix. Note: All species nomenclature follows Stace, C. (1996) 'New Flora of the British Isles' - definitive English names.

Target Note 1:

An immature broad-leaved plantation woodland with occasional mature trees.

The canopy is dominated by ash with occasional alder, while the understorey is composed of mixed bramble, hazel, alder and ash.

The ground flora is dominated locally by ivy and dog's Mercury, although on the edge of the stand Indian balsam occurs occasionally.

Target Note 2:

A small stand of hawthorn scrub adjacent to a small area of amenity grassland. A small stand of Indian balsam is present by the bridge parapet.

Target Note 3:

Dense stands of bramble-dominated scrub adjacent to the factory buildings.

Target Note 4:

A dense stand of bramble-dominated scrub adjacent to the plantation woodland. The stand contains a high proportion of common nettle and butterbur is locally abundant on the river bank and on the side bar below.

Occasional mature alder and semi-mature horse chestnut are present on the river banks

Juvenile regeneration of alder, hazel and ash is present by the roadside.

Target Note 5:

This area appears to have been cleared of trees relatively recently as there are numerous regenerating wild cherry, horse chestnut and ash and an abundance of chipped timber in this area.

There is some residual woodland flora in the form of ivy, wood avens and herb Robert, but the field layer vegetation is succeeding to tall ruderal herb with abundant common nettle, hogweed, and great willowherb, locally abundant meadowsweet and frequent hedge woundwort. Bramble vines are abundant.

There are two semi-mature ash present and a line of immature field maple, hazel and very occasional sycamore have been planted along the road boundary.

Target Note 6:

An immature even-aged stand of planted broad-leaved woodland composed of mixed sycamore, whitebeam, silver birch and beech, with an understorey of holly, hazel and ash.

The ground flora is poor and dominated by ivy.

Target Note 7:

A stand of dense blackthorn scrub set on a bank between the security fence and the road.

Target Note 8:

A swift-flowing section of Mearley Brook between the bridge crossings of Lincoln Way and Up Brooks.

The flow types are mixed and include a relatively long section of shallow glide downstream of Up Brooks with very occasional riffles, a riffle/run sequence on the meander bend, followed by another shallow glide which develops into a run as it enters the Lincoln Way bridge.

The substrates are composed of a gravel/pebble/cobble matrix, with occasional localised boulders. Some artificial substrate is present in the form of stone paving/kerbs.

The banks are composed of earth with occasional vegetated stable cliffs.

There is no in-channel vegetation except for a small emergent stand of yellow iris by Lincoln Way bridge.

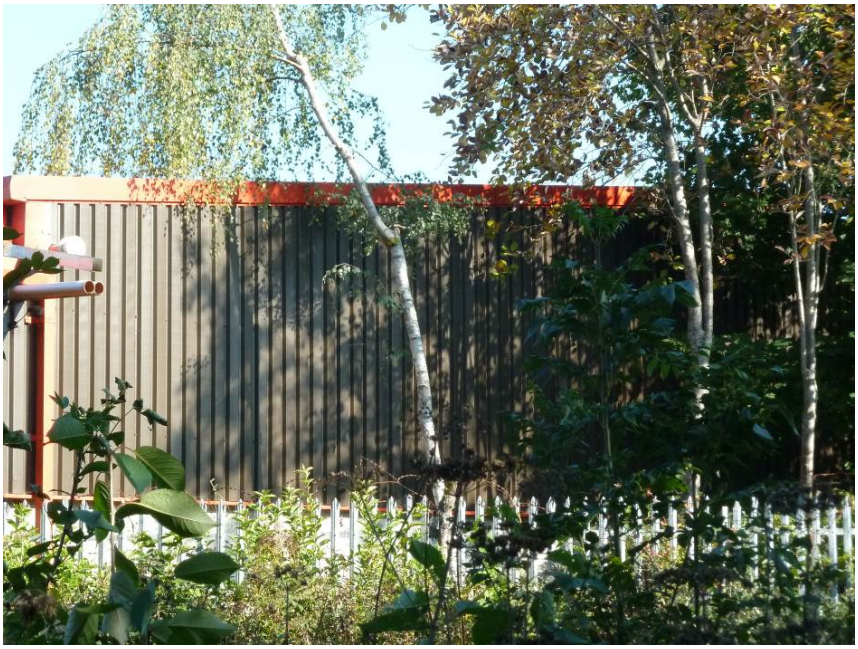
Site Photographs - Habitats:

Photograph 1: The woodland described in Target Note 1.

Photograph 2: The amenity grassland and hawthorn scrub described in Target Note 2.

Photograph 3: Typical view of the scrub area described in Target Note 4.

Photograph 4: The regenerating vegetation described in Target Note 5.



Photograph 5: The planted stand of birch and whitebeam described in Target Note 6.

Photograph 6: Mearley Brook looking upstream from Lincoln Way bridge.

Photograph 7: Mearley Brook looking downstream towards Lincoln Way bridge.

Photograph 8: Mearley Brook looking upstream from the photograph point shown on Photograph 7 above.

Photograph 9: Mearley Brook looking upstream towards the bend showing cobble/boulder substrates and riffle/run sequence.

Photograph 10: Mearley Brook looking upstream from the bend showing vegetated side bar (right), cobble/boulder substrates and riffle/run sequence.

Photograph 11: Mearley Brook looking downstream from the bend showing vegetated side bar (left), riffles and glides.

Photograph 12: Mearley Brook looking upstream of the bend towards Up Brooks bridge – showing extensive glide areas and minor riffles.

2.4 WATER VOLE SURVEY:

2.4.1 General Description:

The watercourse on the site is Mearley Brook which flows south westerly from its source on Pendle Hill.

The river was surveyed visually with binoculars to 30m (approx.) upstream of Up Brooks, and on foot within the site and for 100m downstream of Lincoln Way. The physical features of each of the river sections surveyed are described below.

The flow types are mixed and include a relatively long section of shallow glide downstream of Up Brooks with very occasional riffles, a riffle/run sequence on the meander bend, followed by another shallow glide which develops into a run as it enters the Lincoln Way bridge.

The substrates are composed of a gravel/pebble/cobble matrix, with occasional localised boulders. Some artificial substrate is present in the form of stone paving/kerbs.

The banks are composed of earth with occasional vegetated stable cliffs.

There is no in-channel vegetation except for a small emergent stand of yellow iris by Lincoln Way bridge.

Section 1: Upstream of Up Brooks:

Channel Width and Depth:

The channel is relatively uniform and is approximately 3.5 - 4m wide with a depth range of 0.2 – 0.3m.

Channel Substrates:

Gravel/pebble/cobble mix.

Bank Profiles and Substrates:

The banks are vertical and reinforced by stone revetments with the north bank 1.2m high and the south bank 0.7m.

Concrete revetments are present around and below the bridge.

Flow Types:

Glide flow only.

Vegetation:

The bank vegetation is restricted due to the stone revetments and include several semi-mature sycamore and alder.

There is no in-channel vegetation.

Section 2: Between Up Brooks and Lincoln Way Bridges:

Channel Width and Depth:

The channel width is variable on this section and ranges between 1.8m and 3.5m. Depth is again variable and includes sections at 0.2 - 0.3m, with very localised deeper runs not exceeding 0.5m.

Channel Substrates:

Gravel/pebble/cobble mix with occasional boulders and individual blocks of masonry.

Bank Profiles and Substrates:

The banks are of earth throughout most of the section and have very occasional/localised stable earth cliffs that are vegetated.

Bank height is variable and ranges between 1.5m (very locally) on the north bank to around 0.4 - 1m on the rest of the section.

Profiles are very locally steep at 70˚ but have a general range between 40˚ - 60˚.

Vertical concrete revetments are present around and below the bridge at Lincoln Way.

Flow Types:

The combination of gradient and the presence of a bend in the channels has created a range of flow types which include glides in the upper section before riffle/run sequences occur on the bend. Glide flow with locally extensive riffles occur on the lower half of the river section.

Vegetation:

The bank vegetation is influenced by the shading bankside trees and is sparse locally. A single stand of yellow iris is present on the bank by the bridge which extends into the channel. Otherwise there is no in-channel vegetation.

Section 3: Downstream of Lincoln Way:

Channel Width and Depth:

The channel narrows significantly downstream of the bridge where the river has been straightened.

Immediately downstream of the bridge the channel is approximately 2.3m wide, gradually narrowing to 1.5m (approx.). Depth is 0.2 - 0.4m throughout the section.

Channel Substrates:

Gravel/pebble/cobble mix.

Bank Profiles and Substrates:

Vertical concrete revetments are present around and below the bridge at Lincoln Way.

Downstream the south bank is reinforced with stone/concrete revetments up to the footbridge. Whilst the north bank is earth and managed as amenity grassland with a locally variable profile of around 35˚

Bank height is 1.8-2m on both banks upstream of the footbridge.

Downstream of the footbridge the banks are largely of earth with very localised reinforcement and both banks are mown where accessible.

Profiles are very locally steep at 70˚ but have a general range between 40˚ - 60˚.

Bank height is 1.8 - 2m on the north bank and 1.4m on the south bank downstream of the footbridge.

Flow Types:

The flow types include glides with locally extensive riffle sections that are often associated with exposed substrates.

Vegetation:

The bank vegetation is amenity mown up to the bank top along most of this section. However, there are occasional small immature trees and taller vegetation present, including meadowsweet, yellow iris, butterbur and reed canary-grass, which are also established in the marginal zone very locally.

2.4.2 Survey Results:

With the exception of Section 1 which was viewable from the bridge only, the rest of the river reach was surveyed by walking in the channel. This enabled the surveyor to observe the bank toe in advance using binoculars, and to closely examine the bank faces for signs of water vole activity.

No sign of current/historical water vole occupation was found and much of the habitat is considered to be sub-optimal for the species on account of the hard revetments that have been used to reinforce the banks in Sections 1 and 3.

Whilst there are gaps in the stone revetments, there was no evidence to indicate that water vole use these features.

In Section 2 woodland shade is suppressing aquatic/emergent vegetation, and whilst soft bank substrates are present, this section is considered to be sub-optimal habitat.

In Section 3 only, the closely-mown banks are a negative feature as the natural cover has been removed, however, there is bankside/emergent vegetation of potential value for water vole present.

Please refer to photographs 6-12 in the Phase 1 Survey above which show the general conditions on the reach surveyed.

2.5 OTTER SURVEY:

The river reach surveyed is described in detail in the water vole survey above and is not reproduced here. However, features that could be potentially used by otters are described below.

The river was surveyed visually to 30m upstream of Up Brooks, and on foot within the site and 100m downstream of Lincoln Way.

Holts:

It can be conclusively stated that there are no features on the reach surveyed that are suitable holt sites.

Couches (Hovers):

No obvious couches/hovers (i.e. resting places above ground) were found on the reach surveyed, however, very localised cover on the north side of Section 2 is dense enough to provide that function.

While dense vegetation is present, there are relatively high levels of public activity in near vicinity to the river which reduces the possibility of otters using these areas considerably.

Consequently, the cover value to otters on Section 2 is considered to be 'very low – negligible'.

On Sections 1 and 3 there is no suitable cover.

Spraint Sites:

There are numerous potential spraint sites within the river corridor and include bridges, boulders logs and side bars. All were systematically searched from the channel by the surveyor.

A single spraint site was identified below the bridge at Up Brooks where four spraints were clustered together on a flat concrete revetment.

None of the spraints were fresh, and judging from the condition of the spraints, it is estimated that they were over 30 days old with some much older.

See Photographs 13-15 on the following page.

Site Photographs – Otter:

Photograph 13: The freshest spraint below Up Brooks Bridge.

Photograph 14: Collection of spraints below Up Brooks Bridge.

Photograph 15: A single spraint below Up Brooks Bridge.

Conclusions:

The presence of otter spraint on Mearley Brook confirms that otters use the reach intermittently.

Whilst spraint is present, the survey found no footprints or holts and that cover suitable for couches was very limited and of very low value.

The LeRN data returned no records of otter within 2km, however, the data showed that Mearley Brook supports both trout and bullhead, both of which are eaten by otters, and if these species are present then it is highly likely that other fish species including eels also occur.

Therefore, based on the presence of spraints of varying age and the known presence of fish populations, the reach should be considered to form part of the territory of at least one otter. However, given the size of the stream, fish whilst present probably don't occur in high numbers, therefore this river alone is unlikely to form the whole of the otter's territory, and despite the fact that part of the river is culverted below Clitheroe, Mearley Brook is connected to the River Ribble where prime otter habitat is present.

Based on the above it is assumed that the River Ribble and the lower 'pastoral' reaches of Mearley Brook form the core otter territory, with the upper reaches around the study area being used only intermittently.

2.6 PRELIMINARY BAT ROOST SURVEY:

2.6.1 Survey Results:

The survey included searches of all on-site trees and the elevations of buildings affected by the proposals for potential bat roosts. The surveys were undertaken from ground level using close focusing Leica Trinovid 8x32 binoculars.

The stands of trees and shrubs are divided into separate tree groups (TG), each are described below.

Buildings are identified and described as B1 and B2.

Areas where survey constraints apply are indicated within each tree group/building.

TG1:

An immature broad-leaved plantation woodland with occasional mature trees. Species include ash and alder, some of which have a light ivy cover.

None of the trees have any holes or fissures suitable for roosting bats. In addition, the ivy is open structured and has no features suitable for roosting bats.

Leaf cover created a 'low-moderate' constraint to survey.

TG2:

A small dense stand of hawthorn and a single, mature, multi-stemmed, bankside ash tree with no suitable features for roosting bats.

No constraints.

TG3:

A pair of mature alder on the north bank of the river. The trees have no holes or fissures suitable for roosting bats and have ivy vines growing up the tree.

Leaf/ivy cover created a 'moderate' constraint to survey.

TG4:

A pair of semi-mature alder with no holes or fissures with bat roost potential.

No constraints.

TG5:

A group of mature multi-stemmed bankside alder and crack willow and semi-mature horse chestnut immediately downstream of Up Brooks.

None of the trees have any holes or fissures with bat roost potential.

No constraints.

TG6:

A pair of multi-stemmed (coppiced) ash trees with no holes or fissures with bat roost potential.

No constraints.

TG7:

A stand of immature planted sycamore, whitebeam, silver birch and beech with no holes or fissures with bat roost potential.

No constraints.

TG8:

A dense stand of blackthorn dominated scrub with no holes or fissures with bat roost potential.

No constraints.

B1:

A large, modern, steel-portal frame, industrial building.

The building has a concrete block wall to approximately 1.8m high, above which the wall is constructed from 'plastisol'-coated box-profile sheeting that sits on a tight-fitting steel sill.

The wall has an integral steel gutter and the roof is of the same box-profile construction with matching ridge and verge cappings.

There are no potential roost sites in this building which is sealed from bat ingress.

B2:

A steel shipping container on the south elevation of B1. The building is sealed from bat ingress.

Conclusions:

Overall, the trees and shrubs on the site have 'negligible' value for roosting bats, although it should be noted that 'low-moderate' constraints to survey applied to TG1 and TG3.

In regard to the buildings affected by the proposal, it can be confirmed that 'negligible' roost potential is present and that no survey constraint applied.

2.6.2 Bat Foraging:

Bat foraging on the site is restricted to the edges of the site and in areas where low vegetation forms an interface with tree lines.

Consequently foraging value is limited as most of the site is dense and the open tree-lines largely restricted to the roadside boundaries.

The areas with greatest potential are the low scrub/rank tall herb areas described in Target Notes 4 and 5 in the Phase 1 where sheltered conditions occur.

However, these areas are small and collectively amount to approximately 0.13ha.

Nevertheless, these areas are likely to have value for low numbers of foraging bats locally, and based on the features present on-site together with the connected areas off-site, the foraging potential is estimated to be of 'local' value.

In regard to commuting bats, the Mearley Brook Corridor provides a direct connection between potential roost sites within housing in Clitheroe, to prime foraging areas to the north-east around Worston and Downham.

2.7 BADGER SURVEY:

2.7.1 Survey Details and Results:

The badger survey employed standard techniques to establish if badgers are present on site or use the site for foraging/commuting. (See Section 1.3 Survey Methodology)

The following searches were undertaken.

- Searches for setts on site and within 50m of the site. (Excluding the gardens on Up Brooks)
- Searches for foraging signs and pathways.
- Boundary searches for runs, pathways and latrines.

The survey results are outlined below.

Sett Search:

The survey found no setts on the site or on the surrounding land

Search for Foraging Signs:

The site was thoroughly searched for badger pathways or signs of foraging. No sign of badger foraging activity was found therefore it can be concluded that the species is not using this area for foraging.

Boundary Search:

All of the boundaries of the site were walked and examined for potential runs, pathways and latrines.

The search revealed no runs or pathways on or around the site.

The search found no evidence of badger latrines on any boundaries, therefore the absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

2.7.2 Survey Conclusions:

The survey found no evidence of historic, recent or current use of the site by badgers for foraging, commuting or occupation and the site has no specific current value to badgers locally.

2.8 EVALUATION OF OTHER FEATURES:

2.8.1 Breeding Birds:

The site was assessed in relation to its potential to support nesting birds in the trees, shrubs and buildings on and adjacent to the site.

The land is partly wooded by a largely immature broad-leaved plantation, with other areas composed of tall ruderal herb and dense and scattered scrub.

Collectively the woodland, trees, scrub and shrubs on the site have the potential to support several common bird species. The type of species that might possibly use the site are reasonably predictable and will include common songbirds, (excluding hole-nesting species), magpie and woodpigeon.

Whilst a river is present on the site, there are no nesting opportunities for either kingfisher or dipper.

The buildings also have no nesting bird potential.

Taking into consideration the type/range of habitats present, and the site's size and location, it is reasonable to conclude that the site is only capable of supporting small populations of nesting birds not exceeding 'local' (i.e. Parish) value.

2.8.2 Great Crested Newt Evaluation:

There are no ponds on-site and the nearest ponds are located approximately 330m and 640m north of the site boundary.

The ponds were not visited as given the distance of the proposal site from the ponds, and lack of connectivity in the form of suitable habitat, the likelihood of impacts arising from the development is considered to be remote.

2.8.3 Impact Risk Zones:

Whilst there are no direct impacts on any of the statutory sites locally, Natural England's SSSI Impact Risk Zones (IRZ) Guidance was also consulted in relation to this project.

The SSSI IRZs can be used by Local Planning Authorities, developers and consultants in relation to planning applications, '*The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and "Compensation Sites", which have been secured as compensation for impacts on Natura 2000/Ramsar sites'*.*

*SSSI Impact Risk User Guidance - see www.magic.gov.uk

The list of development categories and associated potential risks are as follows.

GUIDANCE – How to use the Impact Risk Zones

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW?

2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. THE LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:

All Planning Applications

Not applicable.

Infrastructure

Not applicable.

Wind & Solar Energy

Not applicable.

Minerals, Oil & Gas

Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.

Rural Non Residential

Not applicable.

Residential

Not applicable.

Rural Residential

Not applicable.

Air Pollution

Livestock & poultry units with floor space >500m², slurry lagoons >4000m².

Combustion

General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works other incineration/combustion.

Waste

Not applicable.

Composting

Not applicable.

Discharges

Not applicable.

Water Supply

Not applicable.

Conclusions:

Using the IRZ guidance provided by MAGIC, the proposals fall well outside any category of the IRZ criteria as cited above, therefore in line with the current guidance provided, there is no requirement for the LPA to consult Natural England in respect of the potential impacts generated by the proposals.

PART 3 SUMMARY EVAULATION & RECOMMENDATIONS:

3.1 SUMMARY EVALUATION OF FINDINGS:

The field survey and evaluation of the site revealed the following information.

- There are three statutory sites (SSSI/SPA/SAC) within 2km of the site, Salthill and Bellman Park Quarries (154m), Coplow Quarry (845m) and Clitheroe Knoll Reefs (1.6km). Salthill Quarry is also a Local Nature Reserve (LNR).
- The site fails to meet any of the habitat guidelines for selection in respect of Biological Heritage Sites (BHS).
- There is one BHS, Salthill Quarry, within 250m and fourteen within 2km
- The area affected by the proposal is composed of small areas of planted woodland, scrub, tall ruderal herb and a short section of Mearley Brook.
- The habitats affected by the proposal are of 'local' (i.e. Parish) value only.
- Rivers (Mearley Brook) are Section 41 Habitats of Principal Importance in England (NERC) Act 2006.
- The survey revealed no evidence of water vole occupation on Mearley Brook.
- The survey revealed that Mearley Brook forms part of the territorial range of at least one otter.
- There are no ponds capable of supporting GCN within 300m of the site.
- The bat survey of the trees and shrubs revealed 'negligible' bat roost potential only but a ‘low-moderate’ constraint applied locally.
- The buildings have ‘negligible’ bat roost potential.
- Small areas of potential bat foraging habitat are present on the site.
- The Mearley Brook corridor provides a potentially valuable commuting route for bats.
- Small areas of potential bat foraging will be lost as a result of the proposals which can be partially mitigated by the retention of woody vegetation and lighting controls.
- Major impacts on potential bat commuting routes can be avoided by retention of woody vegetation and appropriate lighting controls.
- Nesting bird habitat on the site is limited and the site is considered capable of supporting low numbers of common birds of ‘local’ (i.e. Parish) value.
- The survey of the site and adjacent land revealed no evidence of use of the site by badger.
- LeRN data revealed that Mearley Brook supports bullhead and brown/sea trout.

The evaluation of the survey findings is summarised further below.

3.1.1 Statutory Sites:

There are three statutory sites within 2km of the site, the nearest being Salthill and Bellman Park Quarries at 154m. There are no direct or indirect impacts on those sites as a result of the proposals.

Natural England’s IRZ guidance was consulted which returned no risk of impact.

3.1.2 Vegetation/habitats:

The proposal site is composed of common habitats only, including planted woodland, scrub, amenity grassland, tall ruderal herb and a short section of Mearley Brook. Rivers are S41 Habitats.

The habitats are of 'local' (i.e. Parish) ecological value only, however, Mearley Brook as a whole is probably of 'District' importance.

3.1.3 Water Vole:

The survey found no evidence of current or historical occupation by water vole on the reach surveyed.

3.1.4 Otter:

Otter spraint was found on the river section, therefore Mearley Brook forms part of the territorial range of at least one otter. There are no potential holts on site and the terrestrial habitats have low value only for otter.

Otter is a European protected species (EPS) and is also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981.

Areas used for refuge breeding and shelter are also protected.

3.1.5 Bats:

The trees and shrubs on the site have 'negligible' value for roosting bats, although it should be noted that 'low-moderate' constraints to survey applied to TG1 and TG3.

In regard to the buildings affected by the proposal, it can be confirmed that 'negligible' roost potential is present and that no survey constraint applied.

Bat foraging on the site is restricted to the edges of the site and in areas where low vegetation forms an interface with tree lines. Consequently foraging value is limited as most of the site is dense and the open tree-lines largely restricted to the roadside boundaries.

The areas with greatest potential are the low scrub/rank tall herb areas where sheltered conditions occur. However, these areas are small at approximately 0.13ha only.

Whilst small, these areas are likely to have some value for low numbers of foraging bats locally, and based on the features present on-site, together with the connected areas off-site, the foraging potential is estimated to be of 'local' value.

In regard to commuting bats, the Mearley Brook Corridor provides a direct connection between potential roost sites within housing in Clitheroe, to prime foraging areas to the north-east around Worston and Downham.

3.1.6 Badger:

The site has no badger setts and no sign of habitation, foraging or any use by badger was found on the site.

3.1.7 Birds:

Collectively the woodland, trees, scrub and shrubs on the site have the potential to support several common bird species. The type of species that might possibly use the site are reasonably predictable and will include common songbirds, (excluding hole-nesting species), as well as magpie and woodpigeon.

Whilst a river is present on the site, there are no nesting opportunities for either kingfisher or dipper.

Taking into consideration the type/range of habitats present, and the site's size and location, it is reasonable to conclude that the site is only capable of supporting small populations of nesting birds not exceeding 'local' (i.e. Parish) value.

3.1.8 Great Crested Newt:

Based on the absence of any ponds with the potential to support GCN within 300m, and lack of connectivity in the form of suitable habitat connecting the site with those ponds, no impacts on GCN or its habitat are predicted.

3.2 RECOMMENDATIONS:

The following section outlines any mitigation or precautions required in respect of the survey findings.

3.2.1 Vegetation/Habitats:

No further surveys are recommended for the site, however, it is recommended that some compensatory tree planting should be provided to part mitigate the loss of habitat on site.

In addition, the presence of Indian balsam next to the bridge on Lincoln Way requires specific treatment to prevent its spread.

3.2.2 Water Vole:

Water vole were not found during the study, and given the prevailing conditions observed on the river section surveyed, no further surveys or precautions are required.

3.2.3 Otter:

The survey has shown that the species is not resident on site due to an absence of holts, however, the species traverses the river section as indicated by the presence of several spraints below the bridge at Up Brooks.

It is not envisaged that otters will be directly affected by the proposed works, but they must be given due consideration during the construction phase of the works. The following points need to be considered.

- Any structure/materials placed in the river or on the river bank during the works capable of capturing, containing or injuring an otter must be removed at the end of the working day. Alternatively, such structures must be made safe to prevent contact/ingress by otters during the night.

- Lighting of the site must be kept to a minimum and directed away from the river.

Additional otter survey is not required.

3.2.4 Bats:

Bat roost potential has been evaluated as 'negligible' in all of the trees and shrubs on the site. However, a constraint to survey was noted in TG1 and TG3 due to leaf cover, therefore if there are proposals to fell TG1 and TG3, then these trees must be re-surveyed during December-March when leaf cover is largely absent to confirm presence/absence of roost potential.

In regard to the remaining tree groups and buildings, 'negligible' roost potential can be confirmed, therefore in line with the guidance provided in the BCT Guidelines, no further surveys are required.

In regard to foraging areas, it is advised that as much of the woody vegetation in the river corridor be retained, and any trees lost replaced as much as is possible. This will maintain areas for foraging and commuting.

In addition, it important to implement lighting control in this area to prevent light spillage into the river corridor. If such light control is implemented then bats (if present) will continue to forage and commute along Mearley Brook, and impacts will be 'negligible'.

As the proposal includes the provision of additional parking bays, then it is envisaged that some lighting will be required. Therefore, for guidance Table 2 below summarises the relative impacts of light types on bats.†

†See Bats & Lighting - Overview of Current Evidence and Mitigation. E.L. Stone Bat & Lighting Research Project - University of Bristol.

Table 2: Bats & Lighting	
High Negative Impact	• Broad spectrum lights (particularly blue-white light) with high UV. • Metal halide and mercury. • Uplights - which light above the horizontal plane, illuminating trees and foraging habitat.
Medium Negative Impact	• Broad spectrum lights with low/no UV. • White LED, high pressure sodium.
Low Negative Impact	• Narrow Spectrum Lights with no UV content. • Low pressure sodium and warm white LED.* • Directional downlights - illuminating below the horizontal plane which avoid light trespass into the environment. * low relative attractiveness for insects compared to white light and therefore minimal impact on bats insect prey (Eisenbeis 2009).

The following guidance is appropriate in respect of bats and should be considered in regard to the lighting proposals for the site.

Type of lamp (light source):

The impact on bats can be minimised through the use of narrow spectrum lights with no UV content including low pressure sodium lamps and warm white LED.

Luminaire and light spill accessories:

Lighting can be directed to where it is needed and light spillage avoided. This can be achieved by the design of the luminaire itself and by using accessories such as hoods, cowls, louvres and

shields to direct the light to the intended area only. Where appropriate, planting can also be used as a barrier or man-made features that are required within the build can be positioned so as to form a barrier.

Lighting column:

The height of lighting columns in general should be as short as possible as light at a low level reduces the ecological impact. However there are cases where a taller column will enable light to be directed downwards at a more acute angle and therefore reduce horizontal spill. For pedestrian lighting this can take the form of low-level lighting that is directional as possible and below 3 lux at ground level. The acceptable level of lighting may vary depending on the surroundings and the species of bat affected.

Predicting where the light cone and light spill will occur:

There are lighting design computer programs that are widely used which produce an image of any given site, showing how the area will be affected by light spill when all the factors of the lighting components listed above are taken into consideration. This software should be referred to when designing the lighting scheme for the site.

Light levels:

The light levels should be as low as guidelines permit. If lighting is not needed, don't light.

Timing of lighting:

The times during which the lighting is on should be limited to provide some dark periods. The use of passive infrared (PIR) sensors in certain areas should be considered.

3.2.5 Badger:

Badger are absent on site and no further surveys or precautions are recommended.

3.2.6 Birds:

Nesting bird habitat is present in the woody vegetation on the site.

Therefore any works affecting trees or shrubs should be done outside of the breeding season during September-February inclusive.

Works in the period March-August should not be undertaken unless the trees/shrubs have been checked by an ecologist for nesting birds and found to be absent.

3.2.7 Great Crested Newt:

No impacts on GCN or its habitat are predicted and no further surveys or precautions are recommended.

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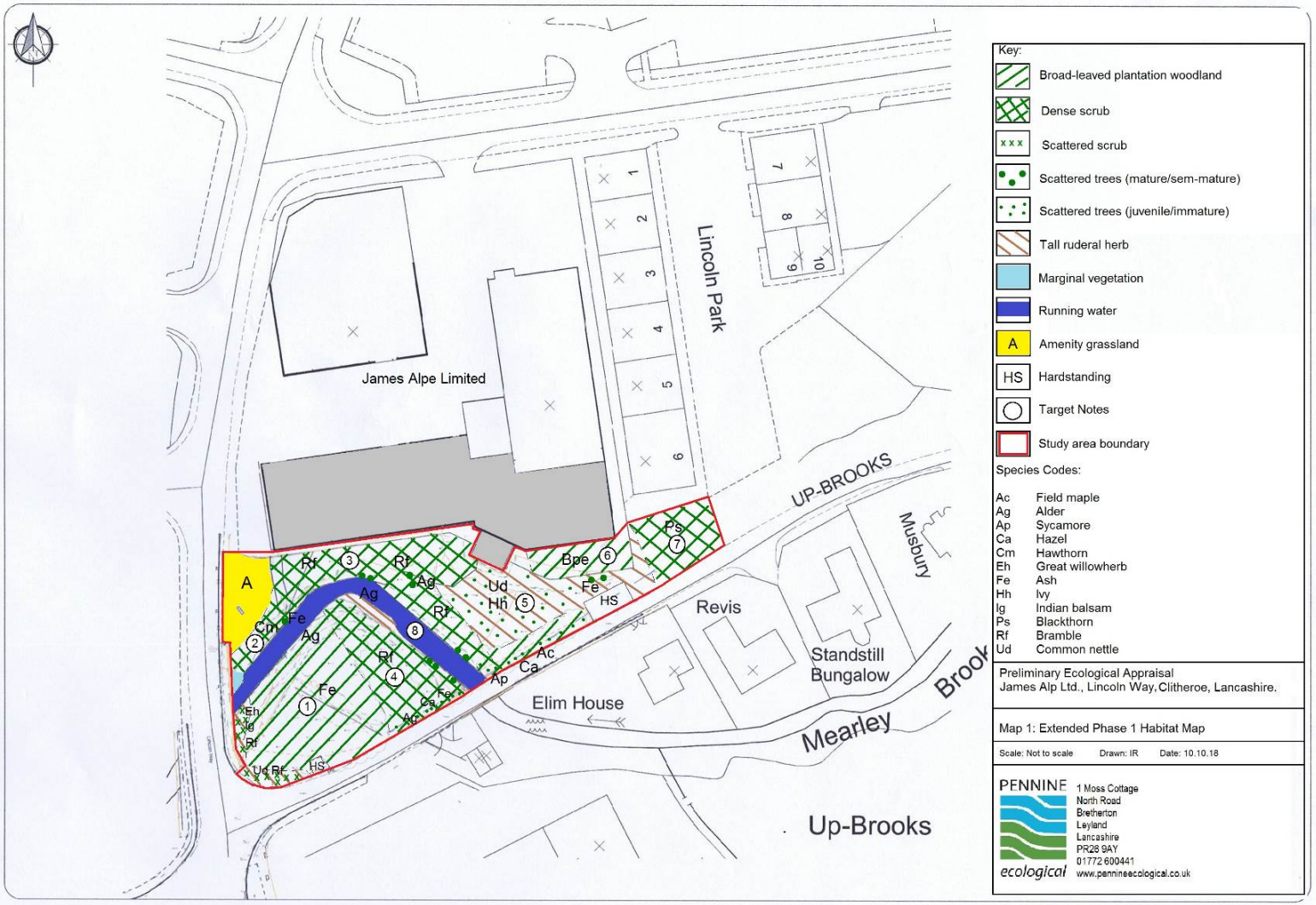
APPENDIX:

Map 1: Extended Phase 1 Habitat Survey Map
Map 2: Bat, Water Vole & Otter Survey – Tree/Building Groups & Otter Spraint Locations
Map 3: LeRN Biological Records Map



Key:

- Broad-leaved plantation woodland
- Dense scrub
- Scattered scrub
- Scattered trees (mature/sem-mature)
- Scattered trees (juvenile/immature)
- Tall ruderal herb
- Marginal vegetation
- Running water
- A — Amenity grassland
- HS — Hardstanding
- Target Notes
- Study area boundary

Species Codes:

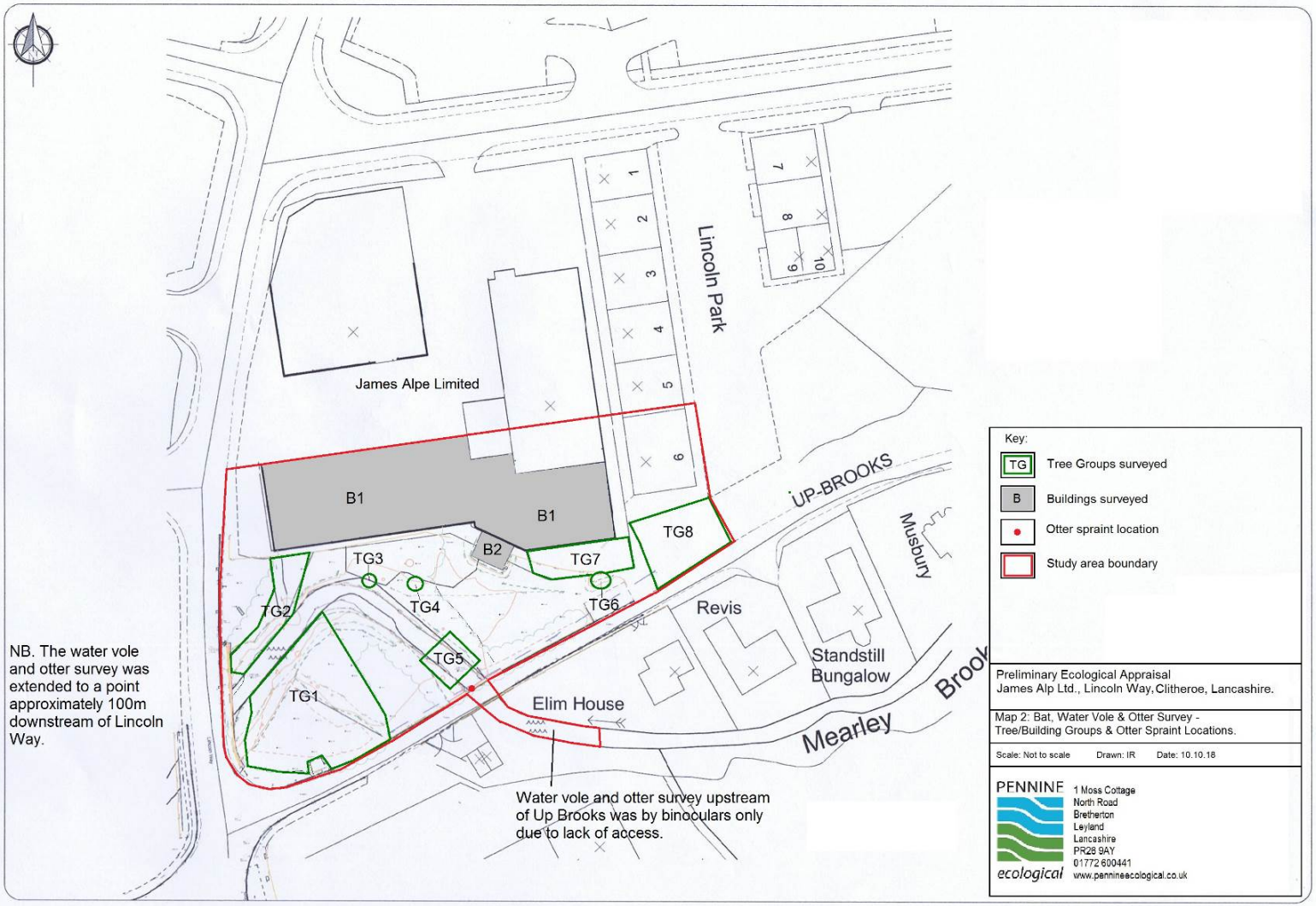
Ac	Field maple
Ag	Alder
Ap	Sycamore
Ca	Hazel
Cm	Hawthorn
Eh	Great willowherb
Fe	Ash
Hh	Ivy
Ig	Indian balsam
Ps	Blackthorn
Rf	Bramble
Ud	Common nettle

Preliminary Ecological Appraisal
James Alp Ltd., Lincoln Way, Clitheroe, Lancashire.

Map 1: Extended Phase 1 Habitat Map

Scale: Not to scale Drawn: IR Date: 10.10.18

PENNINE ecological
1 Moss Cottage
North Road
Bretherton
Leyland
Lancashire
PR26 9AY
01772 600441
www.penninesecological.co.uk


James Alpe Limited
Lincoln Park
1
2
3
4
5
6
7
8
9
10
B1
B1
B2
TG1
TG2
TG3
TG4
TG5
TG6
TG7
TG8
UP-BROOKS
Musbury
Revis
Standstill
Bungalow
Elim House
Mearley
Brook
Water vole and otter survey upstream of Up Brooks was by binoculars only due to lack of access.
NB. The water vole and otter survey was extended to a point approximately 100m downstream of Lincoln Way.
Key:
TG Tree Groups surveyed
B Buildings surveyed
Otter spraint location
Study area boundary
Preliminary Ecological Appraisal
James Alp Ltd., Lincoln Way, Clitheroe, Lancashire.
Map 2: Bat, Water Vole & Otter Survey - Tree/Building Groups & Otter Spraint Locations.
Scale: Not to scale Drawn: IR Date: 10.10.18
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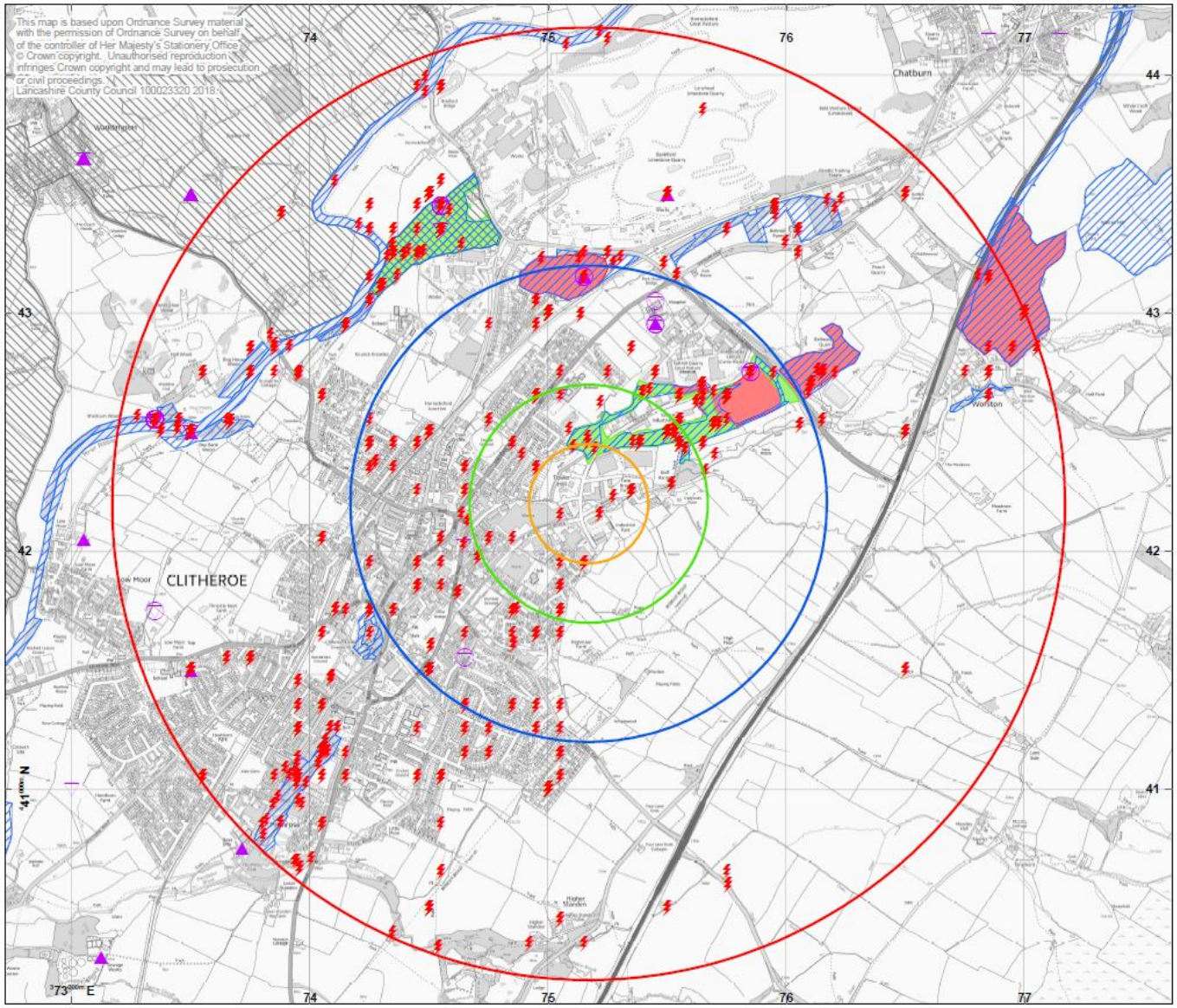

Project:
James Alpe Lincoln Way Clitheroe

Client:
James Alpe Ltd

Grid Ref: 375170 442200

Legend

- 250 m Buffer
- 500 m Buffer
- 1 km Buffer
- 2 km Buffer
- Lancashire Key Species
- Bat Roost or Possible Roost
- Other Bat Record
- SLBG Bat Roost or Possible Roost
- SLBG Other Bat Record
- Biological Heritage Sites
- Local Geodiversity Sites
- Local Nature Reserve
- SSSI

N.B. THIS IS AN INTERACTIVE PDF LAYERS CAN BE TURNED ON OR OFF TO AID CLARITY.

N

Metres

0 — 1000

1:15000

Boundaries of statutory designations (Natura 2000, SSSI etc) are included for information only. Definitive, information for these designations should be obtained from Natural England.

Lancashire Key Species records are plotted at the centre of the area to which they relate (the precision of each record is given in the accompanying attribute data and spreadsheet).

NBN Atlas occurrence download at https://nbnatlas.org accessed on Fri Oct 20 12:44:41 UTC 2017. See supporting documentation for citations and further information.

Lancashire Environment Record Network
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