Extended Phase 1 Habitat Survey & Baseline Ecological Impact Assessment

Pack Horse Garage, Mellor Brook

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Contents

1.0 Introduction

1.1 A baseline ecological survey along with an ecological site appraisal and impact assessment were carried out at land proposed for development at land to the rear of Pack Horse Garage, Mellor Brook with the following aims:

1. To establish the likely presence or absence of protected or otherwise important species and evaluate the overall nature conservation status of the site
2. To assess the likely impact of proposed works to develop the site upon any protected or otherwise important species that may occur on or adjacent to the area of land concerned, and the integrity of nature conservation interest of any other sites of ecological or nature conservation importance within the vicinity
3. To provide outline mitigation and habitat aftercare proposals, as appropriate

1.2 The term *site* will be used in this report to refer to the area of land proposed for development as shown on the site location plan (the Planning Application Red Line plan) unless otherwise indicated within the text.

NB: This report ***must be read in conjunction with the documentation and drawings prepared and submitted to the Local Planning Authority in respect of current development proposals***. The author of this report can accept no responsibility for any misunderstanding resulting from a failure to consult all relevant planning documentation or through any lack of information where responsibility for the provision of such is beyond the control of Cameron S Crook & Associates.

2.0 Methodology

Desktop Survey

2.1 Prior to undertaking any site survey works, a data search was carried out to check for any protected or other important species or habitats occurring within or closely adjacent to the site boundaries. Data sources include the following:

- NBN Gateway
- MAGIC
- Local Knowledge

Any *significant* results are provided within the relevant sections below.

General Ecological and Botanical Survey

2.2 This comprised an initial Extended Phase 1 Habitat Survey carried out in September 2011 with any evidence of birds, amphibians, reptiles and mammals being noted during the survey. The survey methodology for the Extended Phase 1 Habitat Survey comprised a modified version of that described in NCC (1990) and IEA (1995) and where appropriate, with particular respect to the Phase 2 Habitat Survey, incorporating the methodology outlined in Rodwell (1991, 1992, 1995 & 2000) for determination of National Vegetation Classification plant communities.

2.3 This was supplemented by a full vascular plant species survey using the 'walkabout method' as described in Kirkby (1988) and a generalized assessment of the site for suitability of habitat for animals, in particular protected species such as badger, bats, breeding birds (including barn owls) and great crested newts. The results from the initial Phase 1 Habitat survey were used to guide the requirement and level of detail of the more specific surveys outlined below.

2.4 A repeat survey following the same methodology was carried out in May 2016.

Badgers

2.5 This part of the survey was initially carried out concurrently with the Phase 1 Habitat Survey in September 2011 using the standard badger survey methodology as

described in Harris et al (1989). In practice, this comprised a generalized search of the site proposed for development, where suitable habitat was found, to a distance of 30m from the development site boundary (where accessible) to check for feeding signs, habitual runs and footprints, hairs, droppings and latrines, scratching posts and actual setts. A repeat survey was carried out in May 2016.

Water Voles

2.6 This was initially carried out in September 2011 and comprised a detailed inspection of a small section of stream, which passes through the site, following the methodology described in Strachan (1998). No other watercourses will be affected by development proposals so the survey was confined to this section of stream alone. Specifically, the watercourse was examined for evidence of water vole usage including field signs such as latrines (piles of droppings used to mark territories), feeding remains, footprints, burrows, 'vole lawns' and actual sightings or the sound of animals diving into the water. The site was resurveyed in May 2016.

Bats

2.7 The initial bat survey was carried out in September 2011 and comprised a daytime inspection of the buildings adjacent to the access to the site and any other suitable habitat such as mature trees to check for signs of roosting bats, as well as an inspection of any vegetation, especially linear habitat, which was evaluated for suitability in respect of foraging and commuting. No night-time survey was carried out in 2011 since the buildings were found to be unsuitable for bat roosting and there are no mature trees on site suitable for bat roosting that will be directly affected.

2.8 However, during the repeat survey in May 2016, due to the time that had elapsed since the first survey in 2011, a single night-time survey was carried out as a precautionary measure to check for bats using the rear of the building proposed for demolition. Two bat workers carried out the survey on the evening of the 2nd May, both using ultrasonic bat detectors, all bat calls recorded.

Birds

2.9 This part of the survey followed a modified, scaled-down version of the methodology described in Bibby *et al* (1992) and was carried out concurrently with the Phase 1 Habitat Survey during the site visits of September 2011 and May 2016. All potential bird nesting habitat such as trees, shrubs, any other suitable vegetation, and all buildings within the site boundaries were checked for potential use by breeding birds. Incidental records were also made of any birds noted during the survey. The results of the survey have been tabulated within the relevant section below according to the likely breeding potential of each species recorded.

3.0 Existing Situation

General Site Description

3.1 The site comprises an area of rough grassland, scrub, and tall-ruderal vegetation situated adjacent to a steep wooded embankment with a small stream to the base. The wooded bank comprises numerous trees, mostly of native origin, which range from semi-mature to early mature, but also with the occasional mature specimen.

3.2 The central and southern parts are typical native woodland, albeit heavily modified and disturbed, whereas the northern part has been more heavily disturbed and replanted in part with non-native trees and shrubs and ground flora cleared, particularly at the top of the bank adjacent to other properties. The stream is culverted at the northern end where it runs beneath the main road and also at the southern part of the site where it runs for some 60-70m beneath the former site of Hargreaves Mill before reappearing beneath the dense shade of scrub and woodland.

3.3 The stream has an artificial stone bank throughout out its length within the impact site. Only a relatively small section runs adjacent to the site proposed for development. There is a car park to the west of Victoria Terrace, to the east of the stream, comprising mainly tarmac and stone though much of this has now become grassed-over and supports a number of weed and ruderal plant species with the development of dense scrub and young trees further south.

Habitats and Flora

3.4 The habitats recorded during the Phase 1 Habitat Survey either on or bordering the site are summarized within *Table 1* below and shown graphically (where possible) on the Phase 1 Habitat Map to the rear of this report. Only those which have been recorded within the development footprint or that will be affected by development proposals are listed.

3.4 The main part of the site proposed for development comprises an open are of predominantly grassland dominated by Yorkshire fog (*Holcus lanatus*), common bent grass (*Agrostis capillaries*), lanceolate plantain (*Plantago lanceolata*), broad-leaved dock (*Rumex obtusifolium*) and the mosses (*Pseudoscerlopodium purum* & *Eurhyncium praelongum*). Large patches of scrub were recorded, mostly dominated by bramble with occasional rosebay willow herb (*Chamaerion angustifolium*), hawthorn (*Crataegus mongyna*) and dog rose *(Rosa canina*). Most of the plants recorded are ruderal, early colonist species typical of disturbed habitats. However, a small area of damp grassland was recorded which was found to include typical species such as brooklime (*Veronica beccabunga*), wild angelica (*Angelic sylvestris*) and rushes (*Juncus effusus, J. inflexis*).

3.5 The wooded bank, which borders the site, comprises a number of woody plant species typical of woodland in this part of Lancashire. The most notable species here being oak (*Quercus robur*) and birch (*Betula pendula*) both of which dominate the canopy in the central part of the zone. The ground flora is relatively sparse though this is typical of this woodland plant community and includes tufted hair-grass (*Descampsia ceaspitosa*), wavy hair-grass (*D. flexuosa*) and Yorkshire fog (*Holcus mollis*). The understorey comprises mainly bramble (*Rubus fruticosa agg.*) and hawthorn (*Crateagus monogyna*) which also forms the canopy in the more open parts of the woodland, together with ferns such as broad buckler fern (*Dryopteris dilatata*) and male fern (*Dryopteris filx-mas*). Lower down the bank, in the moister, humid areas adjacent to the stream, opposite-leaved golden-saxifrage (*Chrysoplenium oppositifolium*) was recorded, indicating some continuity of habitat and minimal disturbance in this particular part of the zone.

3.6 To the north of the woodland, the community becomes much less typical with fewer native species and a more open canopy indicating more intensive disturbance, apparently over a number of years. The top of the bank is open with species-poor

grassland dominated by Yorkshire fog and common bent grass with ornamental shrubs planted along the northern boundary including privet (*Ligustrum ovalifolium*) and viburnum (*Viburnum sp.*). The southern part of the woodland is more open with a much lower canopy, becoming much scrubbier and dominated by hawthorn and bramble with a large patch of rosebay willow-herb (*Chamerion angustifolium*) marking the south western boundary of this habitat.

Table 1

NCC/RSNC[1] Habitat	NVC[2] Communities
Woodland	W2 *Salix cinerea-Betula pubescens* woodland W6 *Alnus glutinosa-Urtica dioica* woodland W10 *Quercus robur-Pteridium aquilinum-Rubus fruticosus* Woodland
Scrub: dense continuous Scrub: scattered	W21 *Crataegus monogyna-Hedera* helix scrub W22 *Prunus spinosa-Rubus fruticosus* scrub W24 *Rubus fruticosus-Holcus lanatus* underscrub community
Grassland: neutral, semi-improved	MG1 *Arrhenatherum elatius* grassland MG10 *Holcus lanatus-Juncus effusus* rush pasture MG11 *Festuca rubra-Agrostis stolonifera-Potentilla anserina* grassland OV23 *Lolium perenne-Dactylis glomeratus* community
Improved Grassland	MG7 *Lolium perenne* leys and related grasslands
Tall herb and fern: tall ruderal	OV24 *Urtica dioica-Galium aparine* community OV25 *Urtica dioica-Cirsium arvense* community OV26 *Epilobium hirsutum* community OV27 *Epilobium angustifolium* community
Cultivated/disturbed land: ephemeral/short perennial	OV21 *Poa annua-Plantago major* community OV22 *Poa annua-Taraxacum officinale* community OV28 *Agrostis stolonifera-Ranunculus repens* community
Swamp, marginal and inundation	No discernible NVC Communities
Open Water	No discernible NVC Communities

[1] Nature Conservancy Council and Royal Society for Nature Conservation habitat classification (NCC, 1990)

[2] National Vegetation Classification communities (Rodwell, 1991)

3.7 The former car park area through which the proposed access road will run, is dominated by ruderal species such as creeping buttercup (*Ranunculus repens*), dock (*Rumex crispus, Rumex obtusifolium*), lanceolate plantain, dandelion (*Taraxacum sp. agg.*), common ragwort (*Senecio jacobae*a), nettle (*Urtica dioica*), daisy (*Bellis perennis*) and hogweed (*Heracleum sphondylium*). Further south, this grades into scrub and young woodland dominated by semi-mature alder (*Alnus glutinosa*), and willow (*Salix cinerea*) along with and bramble interspersed with rushes (*Juncus spp.*), red campion (*Silene dioica*) and bindweed (*Calystegia sylvatica*).

3.8 The stream, which flows partially through the site, is heavily shaded throughout most of its length. The bank is steep in most parts with an artificial, though eroding stone embankment. This area is dominated by the common liverwort *Lunularia cruciata* and little else. A few patches of opposite-leaved golden-saxifrage were recorded higher

up the bank, along with occasional lesser celandine (*Ranunculus ficaria*), cow parsley (*Anthriscus sylvestris*) and creeping buttercup (*Ranunculus repens*) in the damp shady soil along the stream side. On the stone of the culvert wall to the south end of the stream, a small number of epiphytic plants were recorded, including hart's-tongue fern (*Phyllitis scolopendrium*) and wall rue (*Asplenium ruta-muraria*), and two common lichen species, *Candelariella vitellina* and *Diploicia canescens.*

Significance of Habitats and Flora

3.9 All habitats and vegetation communities recorded on site are relatively common and widespread throughout Lancashire and Great Britain. The habitat adjacent to the site proposed development, specifically the mature woodland, is of some ecological value, as is the stream to a lesser extent, providing a moderate degree of habitat linkage to other sites and will act to some extent as a wildlife corridor for a range of animal species. However, apart from a small section of the stream, which will require culverting to allow access to the site, these habitats will not otherwise be affected. There are no historic records of any other important plant species or habitats occurring within or closely adjacent to the site boundaries and overall the part of the site which forms the development footprint is considered to be of *low ecological value* in this respect. It is reasonable to assume therefore that the proposed development will have no significantly adverse impact upon plants, vegetation communities and habitats.

Mammals (Badgers)

3.10 *Habitat Suitability*: The site provides a moderate level of habitat suitable for badger foraging and the woodland and adjacent scrubby habitat provides habitat suitable for the establishment of setts.

3.11 *Presence/Absence*: An inspection of all suitable habitat to a distance of at least 30m from the proposed development site boundaries (where accessible) revealed no conclusive signs of badger activity. Badgers are known to occur in the wider area and whilst there was some evidence of possible foraging activity, it is reasonable to assume that the site is not of significant importance to badgers.

Mammals (Bats)

3.12 *Habitat Suitability*: There no buildings on the site proposed for development. However, an existing building occurs at the proposed site entrance, which may be affected by development proposals. The building is of a traditional stone construction with a slated roof. There are three main sections, one of which is fully enclosed and used for car repairs. The other two sections, including the section that is likely to require removal, are open sided with unlined, corrugated sheet roofs.

3.13 Beyond the buildings, the woodland, scrub and to a lesser extent, the stream, are likely to be used for foraging and possibly commuting purposes although the extent of existing habitat in that respect is limited so it is not considered to be of great importance.

3.14 *Roosting*: There were no conclusive signs of bat roosting found during the daytime inspection either within the buildings adjacent to the entrance, all parts of which were found to be unsuitable for roosting purposes, nor within any of the trees. No bats were recorded emerging from the buildings in question, though several passes of common pipistrelle were recorded along the vegetation that follows the stream, as well as around adjacent buildings and gardens.

Water Voles

3.15 *Habitat Suitability:* On closer inspection, the stream which partially runs through the site was found to be sub-optimal for use by water voles due to the lack of water depth, and lack of marginal aquatic vegetation resulting from the heavy over-head

shading of the woodland. The banks were also found to be unsuitable for burrowing due to the presence of a stone embankment for much of the length.

3.16 *Presence/Absence:* There were no signs of water vole activity and it is reasonable to assume that the site is not used by this species.

Birds

3.17 *Habitat Suitability*: There is very little habitat on the development footprint part of the site suitable for bird breeding. The most important habitat is the mature vegetation along the site boundaries, primarily the mature woodland and scrub, and to a much lesser extent, the buildings. The grassland is unsuitable for ground nesting birds due to the level of disturbance. There are no water bodies on site suitable for aquatic species. The adjacent stream is too narrow, shallow and heavily shaded to be of importance to birds other than for occasional foraging and drinking.

3.18 *Species Recorded/Potential Breeding:* Table 2 below lists the birds recorded during the survey either within or close to the site boundaries and provides an indication of those species considered likely to breed on site.

Table 2

Species Name	Common Name	Breeding Status
Carduelis carduelis	Goldfinch	PoBr
Carduelis chloris	Greenfinch	P0Br
Columba livia	**Rock Dove (street pigeon)**	**CoBr**
Columba palumbus	**Wood Pigeon**	**CoBr**
Corvus corone	Carrion Crow	PrBr
Corvus monedula	**Jackdaw**	**CoBr**
Erithacus rubecula	Robin	PrBr
Fringilla coelebs	Chaffinch	PoBr
Hirundo rustica	**Swallow**	**CoBr**
Larus argentus	Herring Gull	NoBr
Larus canus	Common Gull	NoBr
Parus caeruleus	Blue Tit	PrBr
Parus domesticus	House Sparrow	PoBr
Parus major	Great Tit	PrBr
Pica pica	**Magpie**	**CoBr**
Sturnus vulgaris	Starling	PoBr
Turdus merula	**Blackbird**	**CoBr**
Key to Breeding Qualifiers: CoBr - Confirmed Breeding; NoBr – Not Breeding; PrNB – Probably Not Breeding; PrBr – Probably Breeding; PoBr – Possibly Breeding *Listed of Schedule 1 of the Wildlife & Countryside act.		

3.19 Most of the species recorded and those considered likely to breeding within or close to the development site boundaries are species which are relatively common and widespread in both urban and rural areas. No Schedule 1 species such as Barn Owl were recorded or are reasonably expected to occur on site (there were no conclusive signs within any part of the building), mainly due to the level of disturbance or general lack of suitable niches. However the following species, House Sparrow and Starling,

are listed as UK Priority Species and as such are also local and UK BAP species. There are no other historic records of any protected or otherwise important species occurring or breeding within the site boundaries.

Great Crested Newts

3.20 *Habitat Suitability:* No standing water-bodies occur on site and no habitat suitable for foraging occurs within the development footprint. No other suitable water bodies occur within 250m of the site boundaries where there is direct habitat linkage.

3.21 *Presence/Absence:* Due to the lack of suitable water bodies within 250m of the site boundaries where there is direct habitat linkage, it is reasonable to assume that great crested newts do not occur on site.

Significance of Fauna

3.22 A number of breeding birds (evidenced from the presence of nests and habitat suitability) which are protected in general terms during the breeding season, occur within or close enough to the proposed development site boundaries to be affected. A number of other species recorded on site are also expected to breed though this is not expected to include any Schedule 1 species such as barn owl. Two of the species recorded however - house sparrow and starling - are listed as UK and Local BAP species. Consequently, any site works which may affect potential breeding sites should avoid the breeding season (February to July inclusive) and any unavoidable loss of breeding habitat should be compensated for by provision of proprietary breeding boxes sited in appropriate locations on completion of site works, if not before.

3.23 There are no bat roosts on or close to the site boundaries though bats commute and forage along the site margins, especially alongside the woodland and mature scrub, to a moderate extent. Measures should therefore be taken to ensure that marginally habitat is retained wherever possible and that there is no severance of any existing wildlife corridors.

3.24 No water bodies suitable for great crested newts occur on site or within 250m of the site boundaries where there is direct habitat linkage and no water bodies suitable for water voles occur within 30m of the site boundaries. It is reasonable to assume therefore that protected species such as water voles and great crested newts which all rely on the availability of aquatic habitat will ***not be adversely affected by development proposals***.

4.0 Potential Impacts & Mitigation

4.1 Likely Impact

4.1.1 The likely impact of the proposed site works is evaluated against the criteria laid out in the table below which is based on NATA (New Approach to Appraisal) as described in Byron H. (2000). This evaluation is based on the assumption that no mitigation works will be implemented.

Table 3. **Impact Assessment Matrix**

Impact Magnitude	**Nature Conservation Importance**				
	Negligible	***Local***	***County***	***National***	***European***
Beneficial Effect	Non Significant	Non Significant	Non Significant	Non Significant	Non Significant
Nil Effect	Non Significant	Non Significant	Non Significant	Non Significant	Non Significant
Minor (short term or reversible effects)	Non Significant	Non Significant	Slight	Moderate	Moderate
Moderate (deterioration of feature	Non Significant	Slight	Moderate	Severe	Severe
High (loss of feature)	Non Significant	Slight	Moderate	Severe	Severe

4.1.2 The evaluation criteria for nature conservation importance are as follows:

European

Habitats which are listed in Annexe 1 of the Habitats Directive and are included as candidate or proposed Special Areas of Conservation (cSAC, pSAC)

Species which are listed under Schedule 2 of the Habitats Directive and form a population which would qualify the site for consideration as a Special Protection Area (SPA) or Special Area of Conservation

National

Habitats which meet the criteria for designation of, or occur within, a Site of Special Scientific Interest (SSSI)

Species which are protected under national wildlife legislation such as the Wildlife & Countryside act, are listed in a national Red Data Book, or that are part of a population or assemblage of species that would meet the criteria for the site being designated a site of Special Scientific Interest (SSSI)

County

Habitats which are rare or uncommon in the County would meet the criteria for inclusion or are included within a second tier nature conservation site (SINC), or which form part of a local Biodiversity Action Plan (BAP) or Habitat Action Plan (HAP)

Species which are rare or uncommon within the County, form part of a population or assemblage of species which would meet the criteria for

inclusion or are included as part of a Site of Importance for Nature Conservation (SINC)

Local

Habitats which are uncommon or threatened within the Mellor Brook/Samlesbury area

S*pecies* which are uncommon or threatened within the Mellor Brook/Samlesbury area

Negligible

Habitats or *Species* that fit into none of the above categories

4.2 Likely Impact of the Development and Outline Mitigation

The current ecological impacts resulting from the proposed sites development works, based on the criteria outlined above and mitigation required to negate any impacts are summarized within the following tables.

4.2.1 Bats

Details	Likely Impacts	Required Mitigation and Residual Impact
The current survey indicates that bats ***do not currently roost*** within any of the existing buildings or trees on site and both foraging and commuting are highly unlikely	The only habitat suitable for bat roosting that will be affected by proposals is the existing building, which was found to have low potential for roosting and there were no conclusive signs of roosting. No other roosting or significant commuting or foraging habitat will be affected	No specific mitigation should be required *based on current survey data*. However, as roosting cannot be totally ruled out at other times of year, to avoid any adverse impact a precautionary approach is recommended, as detailed in the Reasonable Avoidance Measures detailed below
Nature Conservation Importance: **European**	Impact Magnitude: **Nil Effect** Overall Impact: (Nil Effect: European) **Non Significant**	Residual Impact: **Non Significant**

4.2.2 Badgers

Details	Likely Impacts	Required Mitigation and Residual Impact
No badger setts found on site but badgers known to occur in the wider area	No significant impact likely unless new setts are established in the interim	Check for signs of new setts being established 6-8 weeks prior to any site works, including site clearance, taking place. Retain mature vegetation along periphery of site as commuting routes. If new setts found, situation to be reassessed.
Nature Conservation Importance: **National**	Impact Magnitude: **Nil Effect** Overall Impact: (Nil effect: National) **Non Significant**	Residual Impact: **Nil Effect**

4.2.3 Breeding Birds

Details	Likely Impacts	Required Mitigation and Residual Impact
Low bird breeding potential within the main area of rough grassland but moderate to high breeding potential within the mature woodland dense scrub and other rank vegetation adjacent to the site boundaries	Removal of dense scrub other mature vegetation, including rank grassland, during the breeding season (February-July) may result in disturbance to breeding birds and loss of breeding habitat.	Retain as much existing mature vegetation as possible, especially mature woodland and scrub wherever possible and avoid any impact upon vegetation in adjacent sites. No vegetation to be removed and no buildings to be dismantled during the breeding season (February to July inclusive) until or unless checked for breeding birds by an ecologist. Loss of roosting and breeding sites within buildings to be compensated for by siting of proprietary nesting boxes, where possible, on any new buildings or on mature trees.
Nature Conservation Importance: **National**	Impact Magnitude: **High** Overall Impact: (Severe: National) **Severe**	Residual Impact: **Nil Effect**

4.2.4 Great Crested Newts

Details	Likely Impacts	Required Mitigation and Residual Impact
No suitable ponds or other water bodies occur on site or within 250m of the site boundaries where there is direct habitat linkage	No impact likely	No specific mitigation required.
Nature Conservation Importance: **European**	Impact Magnitude: **Nil Effect** Overall Impact: (Nil Effect: European) **Non Significant**	Residual Impact: **Nil Effect**

4.2.5 Botany/Vegetation Communities/Habitats

Details	Likely Impacts	Required Mitigation and Residual Impact
Whilst semi-natural habitat of moderate ecological value occurs along the site boundaries (i.e. woodland, mature scrub and rank grassland) the habitat within the area proposed for development comprises almost exclusively species-poor grassland, hard-standing, buildings or other disturbed ground. Consequently, the development footprint is of predominantly of low ecological value in botanical habitat terms	All vegetation within the development footprint will be lost. However, there will be little or no impact upon any semi-natural vegetation of importance other than a small section of aquatic habitat (stream) which will be lost to accommodate the proposed access road	No specific mitigation required within the development footprint. Beyond this area, ensure that peripheral vegetation such as mature woodland and scrub and any rank grassland or other semi-natural vegetation is retained and links into the wider wildlife corridor maintained. Supplementary planting of any gaps with native tree and shrub species may be required to ensure continuity of habitat and improve habitat diversity.
Nature Conservation Importance: **Local**	Impact Magnitude: **Minor** Overall Impact: (Minor: Local) **Non Significant**	Residual Impact: **Nil Effect**

5.0 Reasonable Avoidance Measures

5.1 To reduce the chances of any likely impact resulting from deconstruction of existing buildings, the following measures should be implemented.

5.2 Bats

- All existing woodwork or other sheet materials situated over 1.5m above ground level, in particular any where there are gaps of greater than 50mm wide x 25mm high x 50mm deep, to be removed using hand tools under the supervision of an appropriately licenced bat worker
- Similarly, where any repointing of retained sections of building may be required, any gaps of greater than 50mm wide x 25mm high x 50mm deep should only be filled between the last week of October and the last week of March, unless these have been first checked with a suitable fibrescope by a licenced bat worker
- Should any signs of bat roosting be found during initial demolition works, repointing works, or any other works that may involve the closing or covering of gaps of the dimensions stated above, all works should cease and further action taken by the appointed bat worker
- Any bats discovered shall be removed from site and either placed in a suitable bat box (if torpid), or held in captivity until works have been completed. In this eventuality, it should be noted that a Natural England EPS Licence may be required for works to continue within the respective part of the site concerned, pending the judgement of the appointed bat worker
- Site workers should be briefed on the possible presence of bats. Any bats encountered should not be handled but should be left in situ (unless in immediate danger) and dealt with by the licenced bat worker
- Where bats are likely to be in immediate danger, the site worker should place the bat or bats in a suitable container such as a cardboard screw box or sock, which in turn should be placed in a safe, cool, dry location, out of the sun, and away from any machinery or other noisy equipment, until the bat worker is able to attend site

6.0 Summary Conclusion

5.1 There was no evidence of any specifically protected or otherwise important species occurring within the development footprint and no important habitats were identified that will be adversely affected.

5.2 A small number of likely breeding birds do occur adjacent to the site. None of the species recorded are Species of Conservation Concern though all breeding birds are protected in general terms during the breeding season. Consequently, there may be an initial but relatively minor loss of breeding habitat if any of the adjacent habitat such as overhanging trees needs to be cut back or removed.

5.3 There were no signs of roosting bats and no vegetation of significance that is likely to be used by bats as commuting or foraging habitat will be adversely affected.

5.4 With adequate mitigation and the implementation of a number of relatively minor precautions as outlined above, it is considered that the proposed development will result in negligible ecological impact.

7.0 References

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8.0 Photographs

8.1 Site Photos

Photo 1. The roof and rear elevation of the section of building proposed for removal	
Photo 2. Close up of the roof of the section of building proposed for removal	
Photo 3. Detailed view of the rear wall of the section of building proposed for removal	

Photo 4. The gable end of the section of building proposed for removal	
Photo 5. The front elevation of the section of building proposed for removal	
Photo 6. Internal view of the section of building proposed for removal, looking towards the gable end	

Photo 7. Internal view of the section of building proposed for removal looking towards the opening to the rear	
Photo 8. Detailed view of the roof underside of Internal view of the section of building proposed for removal, where it abuts the adjacent building section	
Photo 9. Internal view of the section of building proposed for removal, clearly showing the corrugated roof sheets supported on steel framework	

9.0 APPENDIX

9.1 Vascular Plant Records

Scientific Name	Common Name	National Status	Site Status
Achillea millefolium	Yarrow	Common	R
Aegopodium podagraria	Ground Elder	Common	O(LF)
Agrostis capillaris	Common Bent	Common	F(LA)
Agrostis stolonifera	Creeping Bent	Common	O(LF)
Alopecurus pratensis	Meadow Foxtail	Common	F(LD)
Anthriscus sylvestris	Cow Parsley	Common	O(LF)
Arrhenatherum elatius	False Oat-grass	Common	F(LA)
Bellis perennis	Daisy	Common	F
Calystegia sepium	Hedge Bindweed	Common	O(LF)
Cerastium fontanum	Common Mouse-ear	Common	O(LF)
Chamerion angustifolium	Rosebay Willowherb	Common	O(LF)
Cirsium arvense	Creeping Thistle	Common	O(LF)
Cirsium vulgare	Spear Thistle	Common	O(LF)
Crataegus monogyna	Hawthorn	Common	O(LD)
Dactylis glomerata	Cock's-foot	Common	F(LA)
Epilobium obscurum	Short-fruited Willowherb	Frequent	O
Epilobium parviflorum	Hoary Willowherb	Frequent	O
Festuca rubra agg.	Red Fescue	Common	F(LD)
Fraxinus excelsior	Ash	Common	O
Galium aparine	Cleavers	Common	F(LA)
Hedera helix	Ivy	Common	O(LF)
Heracleum sphondylium	Hogweed	Common	F
Holcus lanatus	Yorkshire-fog	Common	F(LA)
Juncus effusus	Soft Rush	Common	F(LA)
Lolium perenne	Perennial Rye-grass	Common	D
Plantago lanceolata	Ribwort Plantain	Common	O(LF)
Plantago major	Greater Plantain	Common	O
Poa annua	Annual Meadow-grass	Common	O(LF)
Poa pratensis sens.str.	Smooth Meadow-grass	Common	F(LA)
Ranunculus acris	Meadow Buttercup	Common	F
Poa trivialis	Rough Meadow-grass	Common	F(LA)
Ranunculus repens	Creeping Buttercup	Common	F(LA)
Rosa canina agg.	Dog Rose	Common	O
Rubus fruticosus agg.	Bramble	Common	F(LD)
Rumex crispus	Curled Dock	Common	F(LA)

Rumex acetosa	Common Sorrel	Common	O
Rumex crispus	Curled Dock	Common	F
Rumex obtusifolius	Broad-leaved Dock	Common	F(LA)
Senecio jacobaea	Common Ragwort	Common	O
Sonchus oleraceus	Sow-thistle	Common	O
Taraxacum agg.	Dandelion	Common	F
Trifolium pratensis	Red Clover	Common	F(LA)
Trifolium repens	White Clover	Common	F(LA)
Urtica dioica	Common Nettle	Common	F(LD)
Vicia cracca	Tufted Vetch	Common	O
Vicia sepium	Bush Vetch	Common	O

Scientific Name and *National Status* follow Stace (1997)

Common Name follows Dony et. al. (1986)

Site Status is an arbitrary assessment of the relative abundance of each species across the whole of the survey area, that follows the DAFOR scale starting with D *dominant* as the highest category (greatest abundance) followed by A *abundant,* F *frequent,* O *occasional* and finally R *rare* as the lowest category (lowest abundance). The letter L represents the term *locally* and refers to species which have a more localized or clustered distribution that differs from the overall abundance of that species within the site as a whole.