Extended Phase 1 Habitat Survey & Baseline Ecological Impact Assessment

Mill Cottage, Mellor Brook

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Executive Summary

1. A series of ecological surveys, desktop survey, and ecological impact assessment, were carried out at land adjacent to Mill Cottage, Mellor Brook in respect of proposals to develop the site to residential housing

2. The site is used by a small number of relatively common breeding bird species and to a relatively small extent for foraging and commuting by bats, but is otherwise of limited ecological value. During the various surveys, there were no signs of any bat roosts in any of the trees or existing buildings that will be affected, and no signs of any other protected or otherwise important species such as great crested newts, badgers or barn owl occurring on site

3. There are no important habitats or vegetation communities occurring on site or close to the site boundaries *that will be adversely affected by proposals*

4. There are no historic records of any protected or otherwise important species or habitats occurring within or adjacent to the site boundaries

5. It is reasonable to conclude that, with adequate mitigation to compensate for the modest loss of habitat and the implementation of a number of relatively minor precautions, there will be no negative ecological impact of any significance resulting from proposals to develop the site

Contextual Statement

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 (as shown in section 7.0 of this report)***. The author of this report will 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.

This report is not intended as a natural history text or scientific paper. Rather, its purpose is to inform the site owner, developer and local planning authority in accordance with current local and national planning guidance, in as clear and succinct a manner as possible. To that end, all survey and assessment works carried out in respect of current proposals are proportionate to the site and situation, and only the minimum level of information necessary has been provided. Detailed information on the respective life cycles of protected species such as the bat, badger or great crested newt, or detailed descriptions of sundry ecological scenarios that have no relevance to the site or development in question have therefore been omitted.

This report provides no planning or legal advice and no attempt has been made to interpret any respective planning or environmental laws that may apply to this case. Any such interpretation must be obtained from an appropriately qualified Planning Consultant, Planning Officer or Lawyer.

All survey works detailed within the methodology section below have been either carried out personally by the author or by appropriately qualified, licenced and/or experienced surveyors working under the direct supervision of the author. The author of this report takes full responsibility for the quality of data collected and any subsequent interpretation. Raw survey data and names of individual surveyors may be provided for *bone fide* reasons, upon request, but only where this is strictly necessary and does not otherwise conflict with client, landowner or surveyor confidentiality and privacy.

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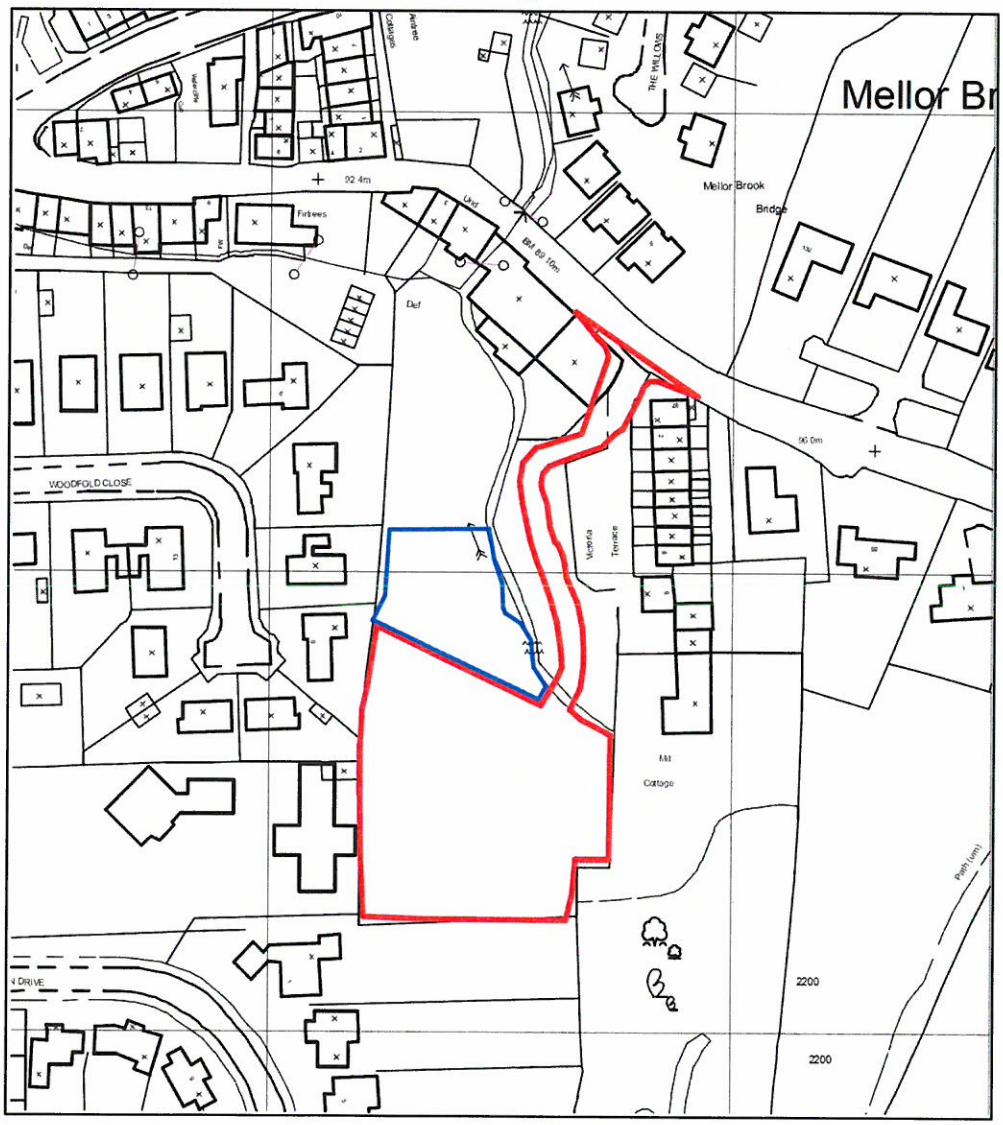
1.0 Introduction

1.1 A baseline ecological survey, site appraisal and impact assessment were carried out at land proposed for development at land to the west of Mill Cottage, 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 terms *site* or *development footprint* will be used in this report to refer to the area of land proposed for development as shown on the site location plan (see *Figure 1* below) unless otherwise indicated within the text.

Figure 1 *Site Location Plan (Red Line Boundary)*



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:

- LERN
- 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. A repeat survey using the same methodology was carried out in January 2016.

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.

Badgers

2.4 This part of the survey was carried out concurrently with the Phase 1 Habitat Survey in September 2011 with a repeat survey in January 2016 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.

Water Voles

2.5 This was carried out in September 2011 with a repeat survey in January 2016 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.

Bats

2.6 The bat survey was carried out initially in September 2011 with a repeat visit in January 2016 and comprised a daytime inspection of any suitable habitat that will be affected by development proposals such as buildings and mature trees to check for signs of roosting bats, as well as an inspection of any other mature vegetation, especially linear habitat, which was evaluated for suitability in respect of foraging and

commuting. No night-time survey was carried out since the buildings that will be affected were found to be unsuitable for roosting purposes and no mature trees suitable for roosting will be affected.

Birds

2.7 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 visit in September 2011. A repeat visit was carried out in January 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 main part of the site proposed as the development footprint comprises an area of rough grassland, scrub, and tall-ruderal vegetation, growing in mosaic, 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. 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.

3.2 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. The stream has an artificial stone bank throughout out its length within the vicinity of the development footprint, though part of this has eroded leaving an occasional soft bank. Only a relatively small section runs adjacent to the site proposed for development.

3.3 Beyond the site boundaries immediately to the north of the development site the main woodland block of the wooded embankment to the west of the stream, and a former car park 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. This is the location of the proposed access to the site. To the west and south, the site is bounded by the gardens of existing developments. There is open grassland, scrub to the east and a small block of woodland to the southeast which follows the stream from where it emerges under the culvert.

3.4 There are no buildings on the main part of the site proposed as the development footprint but there is an existing garage/workshop adjacent to the site entrance, which may be affected during widening to allow access to the site.

Habitats and Flora

3.5 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.

Table 1 *Habitats and vegetation communities*

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)

*Vegetation communities and habitats mainly or entirely beyond the development footprint but closely adjacent to the site boundary

3.6 The main part of the site proposed for development comprises an open area 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*).

3.7 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 wider site.

3.8 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.

3.9 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 jacobaea*), 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*).

3.10 The stream that 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

3.11 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 for development, specifically the mature woodland, is of some ecological value (Broadleaved Woodland is a local BAP habitat) as is the stream to a lesser extent, both habitats providing a moderate degree of linkage to other sites, acting 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 be otherwise affected.

3.12 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)

3.13 *Habitat Suitability*: The site provides a moderate level of habitat suitable for badger foraging and the blocks of woodland and mature scrub which occur along the site boundaries provide habitat suitable for the establishment of setts.

3.14 *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. Whilst badgers are known to occur in the wider area, it is reasonable to assume that badgers do not currently occur on site.

Mammals (Bats)

3.15 *Habitat Suitability*: There are no buildings or mature trees on the site proposed for development. However, there is a building at the site entrance, which may require partial demolition to allow site access. The building comprises a single-storey garage/workshop situated at the end of a housing terrace. The building is of a traditional stone construction with a corrugated asbestos roof supported on a metal frame and a single gable end. There roof is fitted with sky-lights along its full length on both sides of the ridge. The roofing sheets are not lined or covered beneath and there are no enclosed roof voids within any part of the building. The building has three main sections, two of which are fully enclosed to front and rear, the other open to both front and rear. The two enclosed sections of building are fitted with large sliding wooden doors and are used for car repairs and storage of materials and equipment, respectively. The internal stonework of all sections of the building is rendered. The exterior of the building is pointed with no significant gaps noted other than the occasional slot along the rear elevation, presumably used for housing the timber supports of a canopy roof or other building section which has long since gone. Internally the buildings were found to be cold and draughty with few niches available where bat roosting could feasibly take place.

3.16 Beyond the buildings, the woodland, mature 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 for bats.

3.17 *Roosting*: There are no mature trees on site suitable for bat roosting and a detailed inspection of the buildings that may be affected revealed very few niches suitable for roosting purposes and no conclusive signs of recent or current bat roosting were found in any of the niches that were found to be present such as holes in the stonework. It is reasonable to assume therefore that no bat roosts that will be affected by development proposals.

Water Voles

3.18 *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 marginal aquatic vegetation resulting from the heavy over-head shading of the woodland. The banks were also found to be largely unsuitable for burrowing due to the presence of a stone embankment for much of the length.

3.19 *Presence/Absence:* There were no signs of water vole activity within the stream and no other suitable habitat occurs on site. It is therefore reasonable to assume that the site is not used by this species.

Birds

3.20 *Habitat Suitability*: There is very little habitat on the development footprint part of the site suitable for bird breeding. The most important habitat on the wider site is the mature vegetation along the site boundaries, primarily the mature woodland and scrub. The grassland is unsuitable for ground nesting birds due to the level of disturbance though overwintering birds such as redshank may occasionally use it. However, there are no water bodies on site suitable for breeding by 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.

3.21 *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 *Birds recorded during the surveys and likely breeding status*

Species Name	Common Name	Likely Breeding Status
Carduelis carduelis	Goldfinch	PoBr
Carduelis chloris	Greenfinch	P0Br
Columba livia	Rock Dove (street pigeon)	NoBr
Columba palumbus	**Wood Pigeon**	**CoBr**
Corvus corone	Carrion Crow	PrBr
Erithacus rubecula	Robin	PrBr
Fringilla coelebs	Chaffinch	PoBr
Larus argentus	Herring Gull	NoBr
Larus canus	Common Gull	NoBr
Parus caeruleus	Blue Tit	PrBr
Parus major	Great Tit	PrBr
Pica pica	**Magpie**	**CoBr**
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.		

3.22 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 on the urban fringe. No Schedule 1 species such as Barn Owl were recorded or are reasonably expected to occur on site, due to the lack of suitable habitat and the general level of disturbance. There are no other historic records of any protected or otherwise important species occurring or breeding within the site boundaries.

Great Crested Newts

3.23 *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. A pond located to the south west of the site on closer inspection was found to have become terrestrialized and therefore unsuitable for amphibians.

3.24 *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

3.25 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 WCA Schedule 1 species such as barn owl. 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.

3.26 There are no known bat roosts on or close to the site boundaries though bats probably commute and forage along the site margins, especially alongside the woodland and mature scrub. 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. However, as a precautionary measure, the buildings which require removal to allow access to the site should be dismantled with care, ideally during the safe period of October-March inclusive and should there be any signs or suspicion of bats being present, all works should cease and further ecological advice should be sought.

3.27 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 that are uncommon or threatened within the Mellor Brook area

Species that are uncommon or threatened within the Mellor Brook 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 (as indicated on the site plans to the rear of this report) based on the criteria outlined above and mitigation required to negate any impacts, are summarized within the following tables.

4.2.1 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: **Non Significant**

4.2.2 Water Voles

Details	Likely Impacts	Required Mitigation and Residual Impact
Little suitable habitat occurs on site and that which does occur is unsuitable for use by water voles due to the level of shade, lack of aquatic vegetation, and lack of suitable banks for burrowing	There will be a partial loss of aquatic habitat due to the construction of a culvert but this is not currently used by water voles so no impact likely. The proposed opening of the currently culverted section of stream will improve the quality of habitat overall	No mitigation required
Nature Conservation Importance: **National**	Impact Magnitude: **Nil Effect** Overall Impact: (Nil Effect: National) **Non Significant**	Residual Impact: **Non Significant**

4.2.3 Bats

Details	Likely Impacts	Required Mitigation and Residual Impact
Bats are likely to forage around trees and shrubs primarily along the boundaries of the site beyond the development footprint. Commuting routes likely to follow linear features such as lines of trees, woodland edge, mature shrubs, and the stream. However, there are no mature trees on site suitable for bat roosting and the buildings adjacent to the site entrance were found to be generally unsuitable for roosting and no conclusive signs of bat activity were found during a detailed inspection.	Removal of any trees, mature shrubs or other mature vegetation may result in slight severance of commuting routes, and/or loss of foraging areas. However, based on current survey data, there will be no impact upon any roosting bats and development proposals will not be detrimental to the favourable conservation status to the wider bat population	Maintain existing flight-lines wherever possible. As a precautionary measure, the existing building should be dismantled with care during the safe period of October-March inclusive and, should any bats be found, further ecological advice should be sought. Fit proprietary bat boxes to suitable large trees adjacent to the site boundaries to increase bat roosting potential
Nature Conservation Importance: **European**	Impact Magnitude: **Nil Effect** Overall Impact: (Nil Effect: European) **Non Significant**	Residual Impact: **Non Significant**

4.2.4 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 during the breeding season (February to July inclusive) until or unless checked for breeding birds by an ecologist. Loss of roosting and breeding sites 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: (High: National) **Severe** (where works are carried out during the breeding season)	Residual Impact: **Non Significant**

4.2.5 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: **Non Significant**

4.2.6 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 or other disturbed ground. Consequently, the development footprint is of predominantly of low ecological value in botanical habitat terms. There is a small section of stream that will be lost to allow for the access road.	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. However, the section of stream that will be affected is heavily shaded with little or no marginal vegetation and is situated within less than five metres of an existing, much more extensive culvert resulting in proportionally little additional loss. Furthermore, the existing culvert will be opened up to create an additional area of wetland as compensatory habitat.	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. To compensate for the loss of wetland habitat, the extensive culvert shall be opened up and managed for the benefit of wildlife.
Nature Conservation Importance: **Local**	Impact Magnitude: **Minor** Overall Impact: (Minor: Local) **Non Significant**	Residual Impact: **Non Significant /Beneficial**

5.0 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. A number of breeding birds, which may include species which are listed on both local and UK Biodiversity Action Plans at some time of year, all of which are protected in general terms during the breeding season, do or are likely occur on site, and there will be an initial but relatively minor loss of breeding habitat. There will also be a small loss of wetland habitat in the form of a small section of stream. However, with adequate mitigation and the implementation of a number of relatively minor precautions as outlined above, it is considered that overall the proposed development will result in negligible ecological impact.

6.0 References

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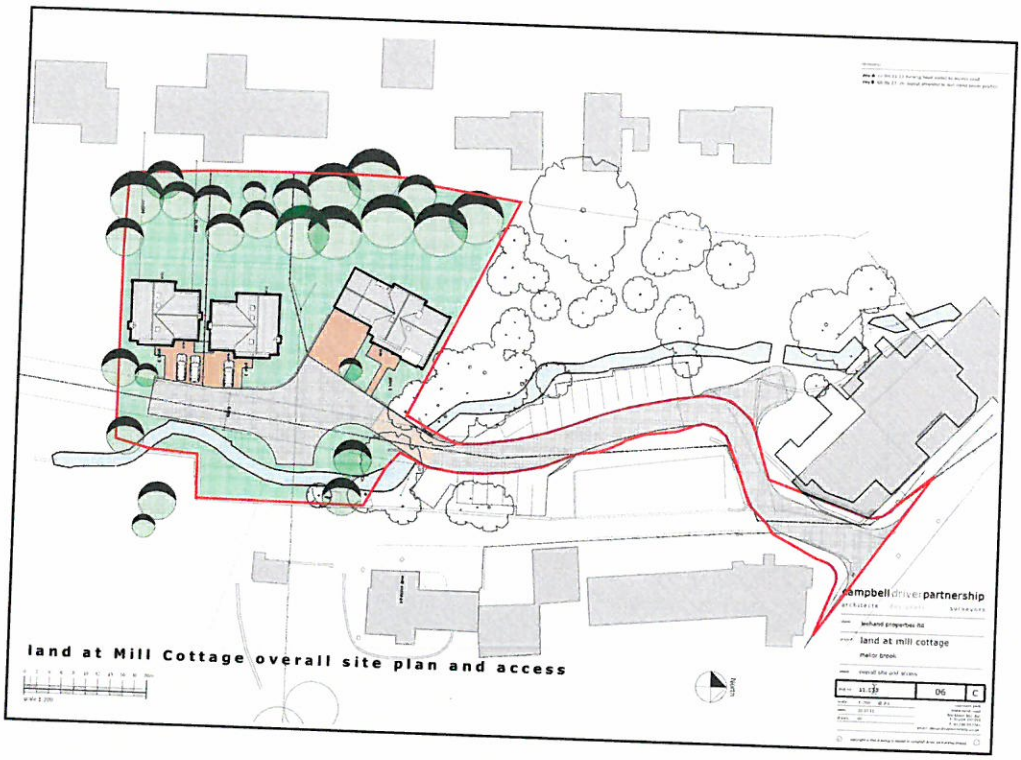
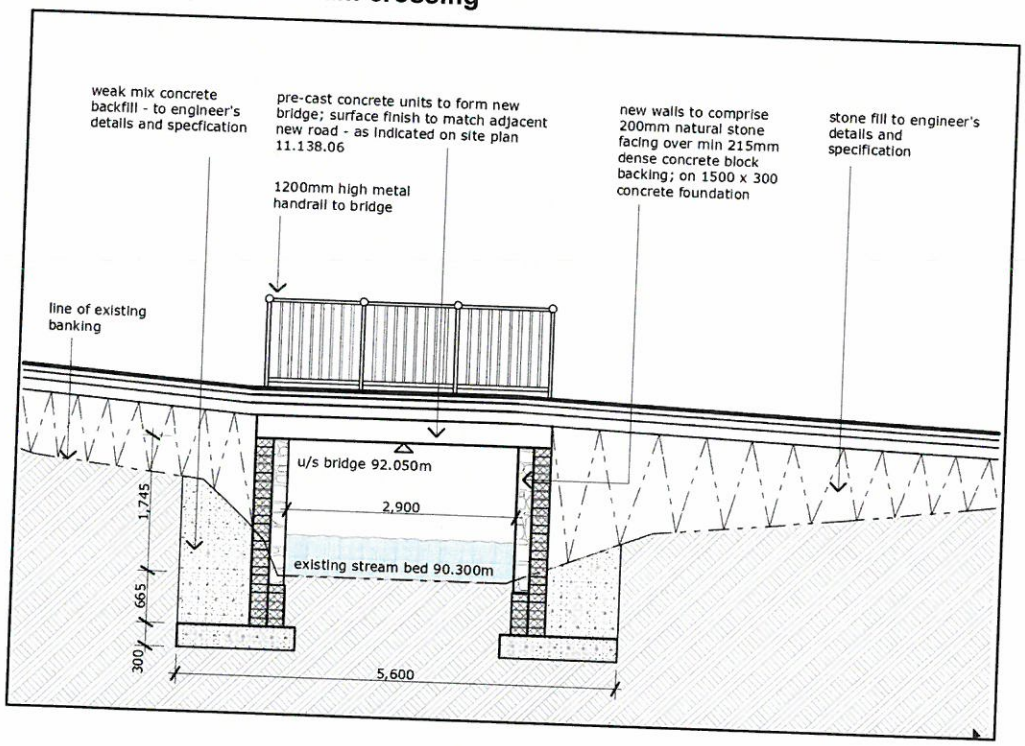
7.0 Site Plan

7.1 Proposed Site Layout and access*



7.2 Detail of proposed stream crossing*



See full set of drawings prepared by Campbell Driver Partnership for further details

8.0 Photographs

Photo 1 The rear (western) elevation as viewed from the former car-park showing the extensive sheet roof with integral sky-lights

Photo 2 Detail of the southern section, which will require removal to allow access to the site. Two small holes visible beneath the eaves presumably previous used for supporting timbers

Photo 3 The rear of the open section of the garage/workshop with the exposed rear entrance and further holes beneath the eaves visible

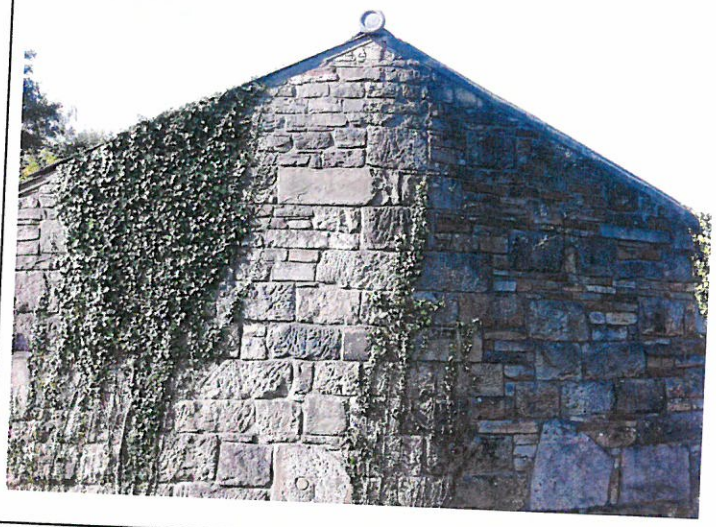
Photo 4 The gable end to the south of the building	
Photo 5 View of the eastern elevation from the south east corner of the building	
Photo 6 An internal view of the southern section of building showing the metal roof support frame and sky-lights	

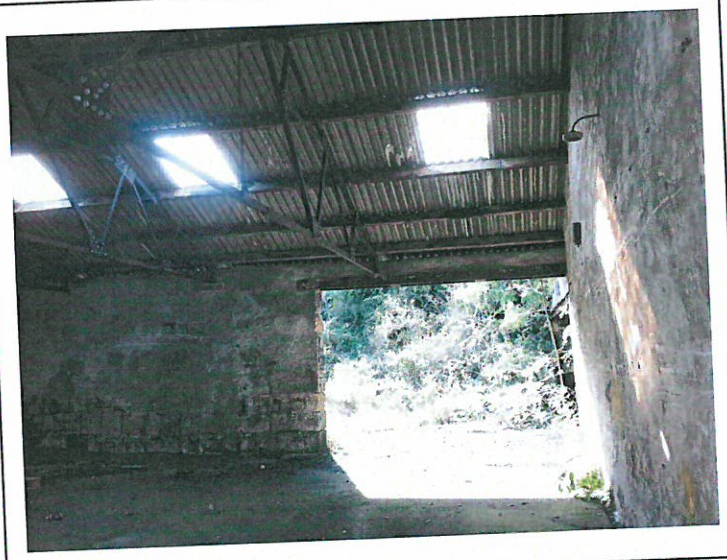
Photo 7 The open rear access of the southern section	
Photo 8 Detail of the dividing wall where the metal roof support beams adjoin	
Photo 9 Detail of the metal roof frame and corrugated roof	

Photo 10 View towards the northern section of the building showing the two wooden sliding doors of the enclosed sections and where the building is attached to the adjacent dwelling to the north	
Photo 11 The former Pack Horse Garage site comprising hard-standing that has vegetated over and the proposed location for the access road, looking south from near to the site access, towards the proposed development site	
Photo 12 The former hard-standing of the Pack Horse garage, looking north towards the existing building from the river	

Photo 13 The proposed river crossing point. The existing culvert will be opened to compensate for the minimal loss of open water resulting from the new bridge	
Photo 14 The proposed development site as viewed from the river crossing point. The site is dominated by tall-ruderal vegetation and rank grassland	

9.0 Legislative Considerations

Bats

9.1 All British bat species are listed and protected under Schedule 5 of the Wildlife and Countryside Act 1981 and Schedule 2 of the Habitat Regulations 1994 where it is an offence to:

- Intentionally or deliberately kill, injure or take (capture) bats;
- Deliberately disturb bats (whether or not in a roost);
- Damage, destroy or obstruct access to a bat roost;
- Possess or transport a bat or any part of a bat unless acquired legally;
- Sell, barter or exchange bats or parts of bats.

9.2 Where any bat roosts are affected by a proposed development, a licence from the Natural England will be required before any development works can be implemented, *irrespective of whether or not planning consent has been given*. However, where no roosts are likely to be affected, no licence is required.

Badgers

9.3 Badgers and their setts are protected under the following legislation:

The Protection of Badgers Act 1992

The Wildlife and Countryside Act 1981

The Protection of Animals Act 1911

The Abandonment of Animals Act 1960

Animals (Scientific Procedures) Act 1986.

9.4 The primary legislation relevant to badgers in this case is the Protection of Badgers act and the Wildlife and Countryside act. With respect to the former, it is an offence to:

- Kill, injure or take a badger, or attempt to do so
- Ill-treat or be cruel to a badger
- Dig for badgers or use badger tongues
- Ring or mark badgers
- Sell or possess a live badger or possess a dead badger,
- Send or deliberately allow a dog to enter a badger sett
- Disturb a badger when it is occupying a sett
- Damage or destroy a sett or obstruct access to a sett.

9.5 However, it should be noted that the legislation does not directly protect habitat used for foraging or migration.

9.6 With respect to any proposed development, any of the offences listed above may be permitted providing a licence has been issued by Natural England.

Water Voles

9.7 Water Vole is listed under Schedule 5 of the Wildlife and Countryside Act (1981 as amended) with respect to Section 9 (4). Both the animals themselves and their habitat (burrows) are fully protected. It is an offence to intentionally kill, injure or take water voles or to intentionally or recklessly damage, destroy or obstruct any structure or place that water voles use for shelter or protection, or to disturb animals whilst they are using such a place. An offence committed under Section 9 of the act carries a maximum penalty of imprisonment for up to six months or a fine not exceeding level 5 on the standard scale, or both. Courts may also order the forfeiture of any vehicle or other thing that was used to commit the offence

Great Crested Newts

9.9 Great crested newts and their habitat are fully protected under both the Wildlife & Countryside act 1981 and Schedule 2 of the Habitat Regulations 1994. It should be noted that where great crested newts and their habitat are affected by a proposed development, a licence from Natural England will be required be the site can be developed, irrespective of whether or not planning consent has been given.

Birds

9.10 All nesting wild birds, with the exception of certain pest species, are protected under Part 1 of the Wildlife and Countryside Act 1981 and barn owls are specially protected under Schedule 1 of the act where it is an offence to:

- Kill, injure or take any wild barn owl;
- Take, damage or destroy any wild barn owl nest whilst in use or being established;
- Take or destroy a wild barn owl egg;
- Have in one's possession a wild barn owl or it's egg;
- Disturb any wild barn owl whilst establishing a nest or whilst in, on or near a nest containing eggs or young;
- Disturb any dependent young of wild barn owls.