

Preliminary Ecological Appraisal

Survey site:

Broom Close, Barnsley, S70 3EG

Client:

John Wade

Survey date:

27th June 2024

Project:

This report is prepared to inform a planning application with the Barnsley Metropolitan Borough Council. The proposal is described as:

The construction of three terraced dormer bungalows.

Survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2024.](#)

<p>The site survey was undertaken by Nicholas Smith Ecological Surveyor, bat licence accredited agent (details can be provided upon request) with over one year experience as an ecological surveyor.</p>					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
21/06/2024	15	67	65	5	None
<p>Ecological Survey Factor</p> <p>Conclusion, Impact or Recommendations</p>		<p>Detailed using desk study and site survey (carried out under good weather conditions). Any specific limitations noted within relevant section. This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.</p>			
<p>Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, photos in appendix 3 and proposal plan in appendix 4).</p> <p>Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).</p>					
<p><i>Summary of Survey Findings</i></p> <p><i>(UKHab codes used)</i></p> <p>Primary codes:</p> <ul style="list-style-type: none"> • g4 – modified grassland • h3d – bramble scrub • h2a5 – species-rich native hedgerow 		<p>The survey site is centred on National Grid Reference SE 36545 04746 and has an area of approximately 0.1ha. The site comprises modified grassland with tall ruderals, bramble scrub and hedgerows with trees. The site is located in a suburban area, southeast of Barnsley. It is located adjacent to the Barnsley Academy ~75m west and Kendray Recreation Ground located ~80m south.</p> <p>A review of Aerial Imagery shows a building to be present on site in June 2023, however there was no building present during the site survey.</p> <p>Biological records data was obtained from Barnsley Biological Records Centre and has been included in this report.</p>			

<ul style="list-style-type: none"> • h2a6 – other native hedgerow <p>Secondary codes:</p> <ul style="list-style-type: none"> • 16 – Tall forbs • 11 – Hedgerow with trees • 518 – neglected 	<p><u>Landscape Assessment</u></p> <p>Designations within 2km consist of Worsborough Country Park Local Nature Reserve (LNR) (located ~1240m Southwest), Stairfoot Brickworks Site of Special Scientific Interest (SSSI) (located ~1560m east), Dearne Valley Park Local Nature Reserve (LNR) (located ~1715m north) and Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) (located ~1820m southeast). Priority habitats located within 2km of the site consist of good quality semi-improved grassland (located ~1300m south), deciduous woodland (located ~380m east) and ancient woodland (located ~1440m southeast).</p> <p><u>Non-statutory sites</u></p> <p>Six non-statutory sites were returned within a 2km search of the survey site. Sites returned comprised: Stairfoot Disused Railway Local Wildlife Site (LWS) (located 1,200m northeast), Cliff Wood LWS (located 1,800m north), Worsborough Reservoir LWS (located 1,700m southwest), Wombell Wood LWS (located 1,400m southeast), Worsborough Dale Regionally Important Geological Site (RIGS) (located 900m southwest) and Lewden Quarry RIGS (located 1,000m south).</p> <p>There are no riparian habitats located on or nearby to the site, therefore riparian mammals and habitats are not considered further. There are no ponds located within 250m of the site.</p> <p><u>Modified grassland [g4] tall forbs [16] neglected [518]</u></p> <p>The site comprised of an area of modified grassland left unmanaged to create a tall sward length (~10cm). The habitat has been assigned as modified grassland due to the grassland consisting of <9 species per metre squared and clover covering over 30% of the habitat parcel and therefore failing 2 out 4 criterion for other neutral grassland. As well as this being a species poor sward of semi-improved neutral grassland, which is details as an exclusion under the UKHab</p>
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	<p>Habitat Classification. In addition to this, species present are indicative of high nutrient content, for example white clover, curled dock, and scented mayweed. This grassland comprised successional species occurring on the previously disturbed land, noted as an inclusion on the modified grassland classification. Yorkshire fog and timothy are also noted as an inclusion for species within the modified grassland classification under UKHab. It is acknowledged ryegrass cover is not dominant and therefore the grassland does not perfectly fit under the UKHab classification, but given the comments listed, modified grassland is considered to be the best fit to the grassland present on site.</p> <p>The grassland species comprised:</p> <p>A: yorkshire fog, opium poppy, timothy</p> <p>F: rough meadow grass, creeping thistle, ribwort plantain, curled dock, daffodil, white clover, scented mayweed</p> <p>O: garlic mustard, garlic mustard, rapeseed, annual meadow grass, colts-foot, chicory</p> <p>R: fox and cubs, yellow rocket, common bent, field forget-me-not, false oat grass, prickly lettuce, nipplewort</p> <p>Grassland- Condition Indication:</p> <p>There are, on average, less than 6-8 species per m². No scattered scrub is associated with the grassland. Physical damage is >5% of the total grassland area. Cover of bare ground is around 50%. No bracken was recorded within the habitat parcel. There is an absence of non-native invasive species within the habitat parcel. The grassland is therefore assessed to be poor condition, passing 4 out of 6 criterion.</p> <p><u>Bramble scrub [h3d]</u></p> <p>An area of bramble scrub was present in the west of the site, other species within the scrub consisted of frequent broad-leaved willowherb, occasional raspberry, common nettle and spear thistle.</p>
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	<p>A second area of bramble scrub was present in the east of the site. Other species within the scrub consisted of occasional creeping thistle and rarely present chicory and foxglove.</p> <p>Four hedgerows were present on site, see below for detailed assessments of each hedgerow, see Appendix 1 for hedgerow locations.</p> <p><u>Species-rich native hedgerow with trees [h2a5, 11]</u></p> <ul style="list-style-type: none">• Hedgerow H1 related to the hedgerow located on the western boundary of the site. The hedgerow was approximately 27m in length, 3m in height and 1.5m in width. The hedgerow was consisted of frequent hornbeam, rose and common ivy. Standard tree species consisted of silver birch and elder. The understorey was dominated by bramble. <p><u>Other native hedgerows with trees [h2a6 11]</u></p> <ul style="list-style-type: none">• Hedgerow H2 related to the hedgerow located on the northern boundary of the site. The hedgerow was approximately 40m in length, 1.5m in height and 1.5m in width. The hedgerow consisted of occasional elder, common ivy. Standard tree species consisted of elder. The understorey was dominated by bramble.• Hedgerow H3 related to the hedgerow located on the eastern boundary of the site. The hedgerow was approximately 18m in length, 1.5m in height and 0.5m in width. The hedgerow consisted of frequent hornbeam with rarely present elder trees. The understorey was dominated by bramble.
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	<ul style="list-style-type: none"> • Hedgerow H4 related to the hedgerow located on the southern boundary of the site. The hedgerow was approximately 40m in length, 1m in height and 0.5m in width. The hedgerow consisted of frequent hornbeam with occasional rose. Standard tree species consisted of hornbeam. <p>Hedgerow – Condition Indication (all hedgerows)</p> <p>The height is >1.5m and width is >1.5m. Gap between ground canopy <0.5m for 90% of the length. Gaps make up <10% of total length and no gaps are >5m. There is >1m of undisturbed ground with perennial vegetation >90% of the length on one side of the hedgerow. Plant species indicative of nutrient enrichment of soils dominate <20% of the area of disturbed ground. >90% of the hedgerow ground flora is absent of invasive non-native species. All trees within the hedgerow were young. At least 95% of the hedgerows were in good condition. The hedgerows are therefore assessed to be in good condition, passing 9 out of 10 criterion.</p> <p>Biological Records Data</p> <p>Notable plant species returned within 2km of the site include: bee orchid, bluebell, broad-leaved helleborine, common spotted orchid, cornflower, marsh orchid, northern marsh orchid, marsh stitchwort, southern marsh orchid and toothwort. The closest record was bluebell, located approximately 1.2m southeast of the site.</p>
<p><i>Foreseen Impacts</i></p>	<p>The habitats on site are widespread and not notable. The proposed development will result in the losses of modified grassland and bramble scrub which are of limited ecological value. The proposed development will also likely result in the loss of the hedgerows and trees on site which are of relatively greater ecological value in the context of the site.</p>
<p><i>Recommendations</i></p>	<p>A Biodiversity Net Gain (BNG) assessment may be required for the site.</p>

	It is recommended that losses to the existing hedgerows and trees are offset through new native tree planting/hedgerow planting and the loss of modified grassland and bramble scrub should be offset through the creation of areas of species-rich wildflower grassland and new native scrub planting.
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	The site is not known to be subject to any designation. There are four statutory designated sites and six non-statutory designated sites located within 2km of the site boundary listed above. No national network sites (SAC, SPA, Ramsar) are located within 2.5km. The site does not fall within a SSSI Impact Risk Zone that highlights any potential impacts as a result of the proposed development.
<i>Foreseen Impacts</i>	The proposed development is not anticipated to cause any impacts to offsite habitats due to the small scale and low overall impact of the development.
<i>Recommendations</i>	None required.
Invasive / Non-native species	
<i>Summary of Survey Findings</i>	No problematic invasive and non-native species were recorded on site. Biological Records Data Invasive/ non-native species returned within 2km of the site comprise Japanese knotweed, New Zealand pygmy weed, Himalayan balsam and giant hogweed. The closest record was Himalayan balsam, located 650m northeast of the site.
<i>Foreseen Impacts</i>	N/A
<i>Recommendations</i>	No further surveys but remain vigilant.
Invertebrates	
<i>Summary of Survey Findings</i>	No habitat for protected or notable invertebrates is found on site. It is likely that the hedgerows, scrub and modified grassland support a common assemblage of invertebrates.

<i>Foreseen Impacts</i>	Losses of modified grassland, scrub and hedgerows will result in minor losses of suitable invertebrate habitats.
<i>Recommendations</i>	<p>It is recommended that species-rich grassland be provided as part of the proposed development which would provide enhanced opportunities for invertebrates post-development. It is recommended that log piles are provided post-development which could create new habitat within the site for saproxylic invertebrate species.</p> <p>Biological Records Data</p> <p>Notable insect species noted within 2km of the site include cinnabar, dingy skipper, forester, latticed heath, shaded-broad bar, small heath, small square-spot, wall butterfly, white ermine and white-letter hairstreak. The closest record was a cinnabar, located approximately 800m southwest of the site.</p>
Bats	
<i>Summary of Survey Findings</i>	<p>There are no bat roosting habitats on site as the trees within hedgerows did not have any developed features that may present suitable roosting opportunities for bats.</p> <p>. The hedgerows and trees offer suitable commuting and foraging opportunities for bats.</p> <p>Five EPSLs were identified within 2km of the site boundary, as follows:</p> <ul style="list-style-type: none"> • 1.2km S. Destruction and destruction of a resting place and damage site for soprano pipistrelle (2017-32557-EPS-BDX). • Four licences were present at the same location, 1.8km NE. Destruction of a breeding site for soprano pipistrelle (2016-26581-EPS-MIT-1, 2016-26581-EPS-MIT-2, 2016-26581-EPS-MIT-3, 2016-26581-EPS-MIT) <p>Biological Records Data</p> <p>The records noted the following bats recorded within 2km of the site: common pipistrelle, soprano pipistrelle, noctule and a <i>Myotis sp.</i> The closest record was a field siting of a <i>Pipistrellus sp</i> located approximately 300m north of the site.</p>

<i>Foreseen Impacts</i>	The loss of hedgerows would result in a slight reduction of foraging/navigational opportunities for bats, but is not likely to result in fragmentation of corridors in the wider context of the site. The proposed development may lead to an increase in the amount of current lighting of surrounding habitat. This may disturb commuting bats.
<i>Recommendations</i>	<p>It is recommended that losses to the existing hedgerows are offset through new native hedgerow/tree planting which would maintain foraging opportunities for bats post-development. The recommended creation of the species-rich grassland would provide enhanced opportunities for invertebrates post-development, which would in turn provide enhanced foraging opportunities for bats.</p> <p>A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting-2</p> <p>It is recommended that the new bat boxes are integrated within the fabric of new buildings to provide enhanced roosting opportunities within the site post-development.</p>
Birds	
<i>Summary of Survey Findings</i>	<p>No notable bird species were recorded within the site during the survey. The hedgerows and scrub offer suitable nesting opportunities for birds, whilst the grassland offers some suitable foraging opportunities.</p> <p>Biological Records Data</p> <p>Notable bird species recorded within 2km of the site include barn owl, brambling, goshawk, hobby, kingfisher, little ring plover and peregrine, black redstart, black-tailed godwit, fieldfare, fire crest, golden eye, green sandpiper, green shank, greylag goose, merlin, quail, redwing, whooper swan and woodlark. The closest record was a black-headed seagull located 400m northeast of the site.</p>

<p><i>Foreseen Impacts</i></p>	<p>The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests. The losses of hedgerows will result in some loss of foraging and nesting habitat.</p>
<p><i>Recommendations</i></p>	<p>Any vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.</p> <p>Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged.</p> <p>The recommended creation of the species-rich grassland would provide enhanced opportunities for invertebrates post-development, which would in turn provide enhanced foraging opportunities for birds, whilst new tree/hedgerow planting would offset losses to potential nesting habitat.</p> <p>It is recommended that new bird boxes are installed on new buildings to provide nesting opportunities within the site post-development. It is recommended that new tree/hedge planting comprises native species and fruit/berry bearing species to serve as a seasonal foraging resource for birds.</p>
<p>Reptiles</p>	
<p><i>Summary of Survey Findings</i></p>	<p>There is a lack of suitable reptile habitat present on site. Given the lack of a tussocky grassland, it is considered unsuitable for reptiles, however it may be used for dispersal. The hedgerows and bramble scrub may provide some shelter/hibernation opportunities for reptiles, but this is restricted by the absence of rough grassland in the area.</p> <p>Biological Records Data</p>

	Notable reptile species returned within 2km of the site included adder, common lizard and grass snake. The closest record was a common lizard located approximately 1km southeast of the site.
<i>Foreseen Impacts</i>	There is a low risk that a low number of reptiles could be present in the vicinity of the works. These could be injured or killed without mitigation.
<i>Recommendations</i>	<p>A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:</p> <ul style="list-style-type: none"> • The removal of hedgerows and roost systems will be undertaken outside of reptile hibernation season (November - February). • Vegetation will be maintained at a short sward (5cm) to discourage reptiles. • Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. • Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance. • In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist. <p>The provision of log piles would provide new shelter/hibernation opportunities in the event that reptiles are present in the locality.</p>
Amphibians	

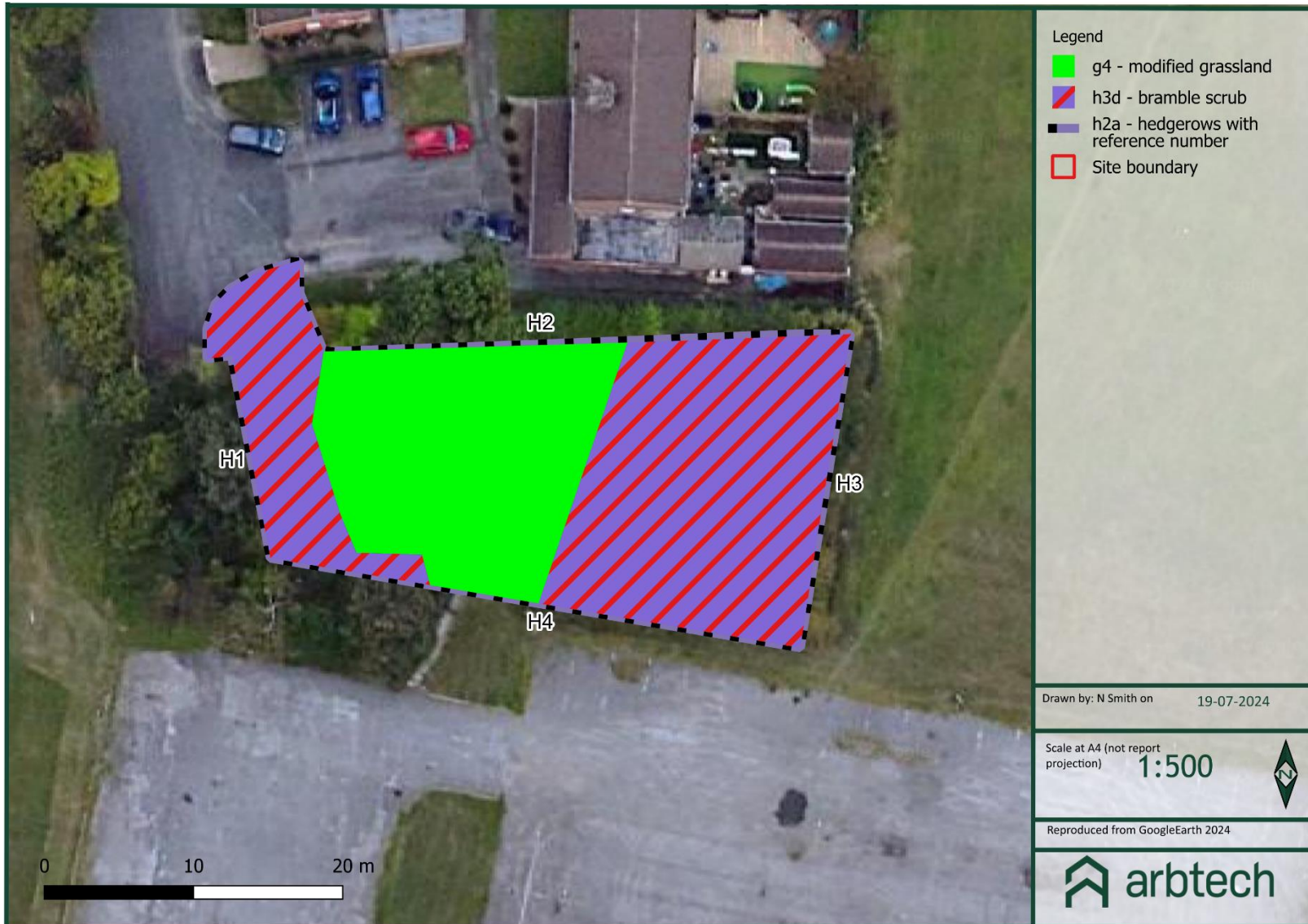
<p><i>Summary of Survey Findings</i></p>	<p>There are no ponds present on site or within 250m of the site. The site provides limited suitable foraging, commuting and shelter habitat for amphibians in the form of modified grassland and hedgerows. Given the absence of any ponds within 250m of the site boundary, it is considered highly unlikely that great crested newts (GCN) would be present within the site.</p> <p>No granted EPSLs were identified within 2km of the site boundary.</p> <p>Biological Records Data</p> <p>Notable amphibian species returned within 2km of the site include smooth newt, common toad and common frog. The closest record was common frog spawn, located 1.3km southeast of the site.</p>
<p><i>Foreseen Impacts</i></p>	<p>Modified grassland will be removed during construction. The loss of such habitats is unlikely to have adverse effects on local amphibian populations owing to the presence of similar well-connected habitat of a size capable of supporting a viable population. However, site clearance could result in the death or injury of common amphibians if present.</p>
<p><i>Recommendations</i></p>	<p>Given the size and limited likely impacts of the proposed development, further surveys are considered disproportionate. Instead, a precautionary working method during construction is considered appropriate to ensure no amphibians (or other herptiles) are unduly harmed and no offence is caused. This will include the following measures:</p> <ul style="list-style-type: none"> • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be cut to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area. • Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets away from site boundaries or retained vegetation or removed from the site to prevent amphibians from utilising these areas.

	<ul style="list-style-type: none"> • Best practice pollution and habitat damage prevention measures will be implemented to minimise impacts to retained habitats that amphibians could use. • Any chemicals or pollutants used or created by the development must be stored and disposed of correctly according to COSHH regulations. • All trenches will be closed at the end of the day or left with a ramp to enable amphibians to escape. They will be checked prior to closing. • If any common amphibians are found in the working area these should be encouraged to move away of their own volition. If for any reason they are unable to do so, they will be moved by gloved hand to a bucket or other suitable container and transported to vegetated area away from disturbance. <p>In the unlikely event that a great crested newt or other protected amphibian is identified, works must cease and advice must be sought from a suitably qualified ecologist.</p>
Badger	
<i>Summary of Survey Findings</i>	No evidence of badgers was found on or within 30m of the site. The grassland, hedgerows and scrub offer some foraging opportunities for this species.
<i>Foreseen Impacts</i>	<p>No works will be undertaken within 30m of a badger sett. Grassland, scrub and hedgerows will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.</p> <p>Biological Records Data</p> <p>10 records of badger were returned within 2km of the site, with the closest recorded 1.4km southeast from the site.</p>
<i>Recommendations</i>	Basic precautionary mitigation during works is recommended:

	<ul style="list-style-type: none"> Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to habitats which badgers could use. South and west boundaries. Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>In the unlikely event that a badger sett is identified within 30m, works must cease and advice must be sought from a suitably qualified ecologist.</p>
Hazel dormouse	
<i>Summary of Survey Findings</i>	<p>The site is outside of the known distribution for dormice in the UK and they are unlikely to be present on site.</p> <p>There are no dormouse European Protected Species Licenses (EPSLs) within 4km of the site boundary.</p> <p>Biological Records Data</p> <p>No records of hazel dormice were returned within 2km of the site.</p>
<i>Foreseen Impacts</i>	No impacts are anticipated on hazel dormice as a result of the proposed development.
<i>Recommendations</i>	None.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	<p>The grassland on site provides suitable foraging and commuting habitat for hedgehogs. The scrub and hedgerow provide suitable hibernation/shelter habitat for hedgehogs.</p> <p>Biological Records Data</p> <p>20 records of hedgehog were returned within 2km of the site, with the closest located 1.2km southwest from the site.</p>

<i>Foreseen Impacts</i>	The loss of grassland, hedgerows and scrub is likely to be buffered by extensive similar habitat surrounding and connected to the site which is of sufficient extent to continue supporting viable populations. However, construction activities could result in the death or injury (unnecessary suffering) of small mammals if present, the latter of which constitutes an offence under the Wild Mammals (Protection) act 1996.
<i>Recommendations</i>	<p>Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:</p> <ul style="list-style-type: none">• Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.• The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.• Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. <p>If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.</p>

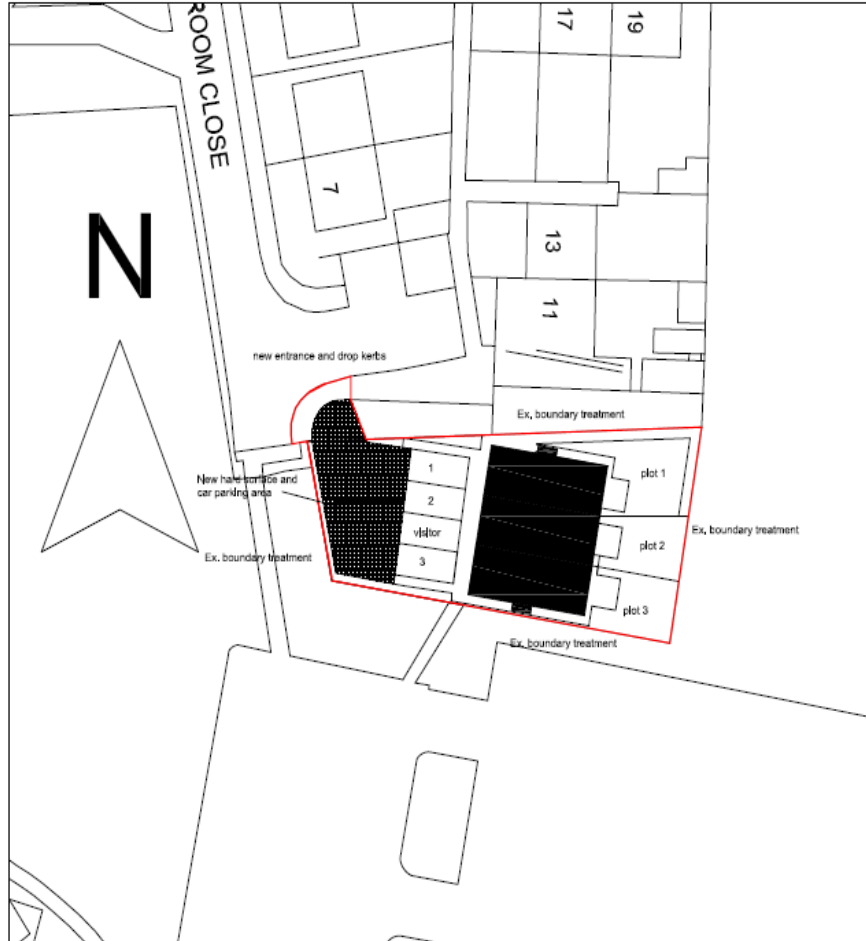
Appendix 1: Survey/Habitat map



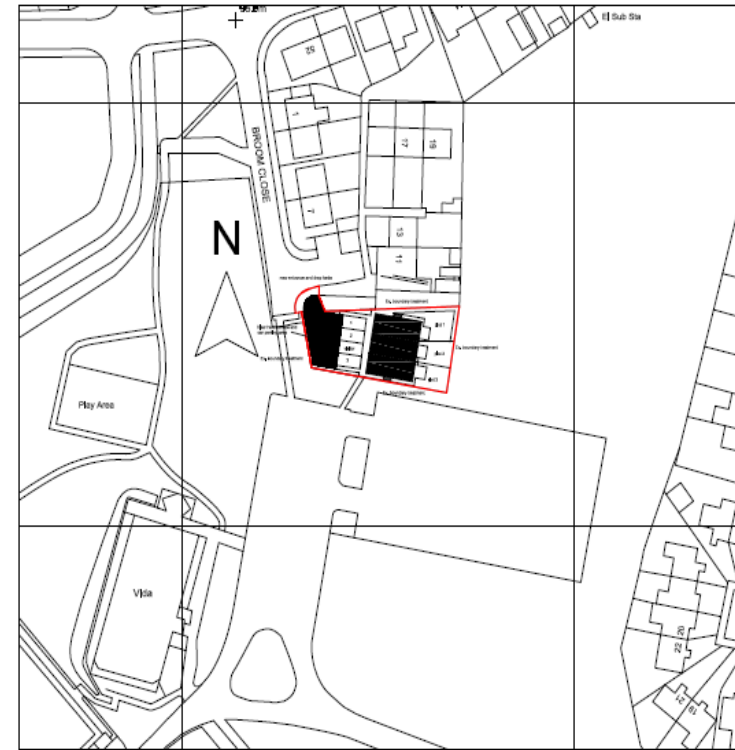
Appendix 2: Location map



Appendix 3: Proposed plan



Site Plan 1:500



Site Location Plan 1:1250

Appendix 4: Photos



Photo 1: Modified grassland present on site.



Photo 2: Dense bramble scrub present on site.



Photo 3: Hedgerow H1 present on the western boundary.



Photo 4: Hedgerow H2 present on the northern boundary.



Photo 5: Hedgerow H3 present on the eastern boundary.



Photo 6: Hedgerow H4 present on the southern boundary.

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