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Preliminary Ecological Appraisal and Roost Assessment

Survey site:

70 Reading Road, Wokingham, RG41 1EL

Client:

Ria Joyce

Survey date:

3rd March 2025

Project:

This report is prepared to inform a planning application with the Wokingham Borough Council. The proposal is described as:
The construction of a single and two-storey extension to existing dwelling, replacement of the front entrance, bay window to front elevation and detached single storey double garage.

PEA survey methodology and legislation can be found in the Arbtech Supplement: **PEA Methodology and Legislation - 2024.**

PRA survey methodology and legislation can be found in the Arbtech Supplement: **PRA Methodology and Legislation - 2024.**

Site Location and Context

The survey site is centred on National Grid Reference SU 80274 69151 and has an area of approximately 0.125ha. The site comprises one dwelling (B1), associated outbuildings (B2 & B3) and a vegetated garden with scattered trees. The site is surrounded by residential dwellings within the town of Wokingham with woodland to the north-east, Emm Brook approximately 430m south-west and grassland to the south. There are scattered trees within the site and extending into the local garden landscape. Aerial imagery shows the local landscape to have a semi-urban character, as the site is surrounded by residential dwellings with relatively large, open gardens with scattered trees.

Survey Details

The site survey was undertaken by Beth Ellison-Perrett BSc (Hons) MSc, MRSB, Senior Ecologist, an ecologist with four years of experience, and holder of Natural England survey licences for bats [2023-11066-CL17-BAT] and great crested newt [2024-11998-CL08-GCN].

Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (mph)	Rain
03/03/2025	7	61	0	1	None

Survey limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

The loft space was not fully accessible as there was a large water tank immediately to the north when entering the loft space which prevented access into the northern section of the loft. However, the loft could be seen around the edge of the water tank to see if there were access points into the loft. None were observed.

Validity

The survey, results, and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

<table>
<tr><td>Ecological Survey Factor

Conclusion, Impact or Recommendations</td><td>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.</td></tr>
<tr><td colspan="2">Habitats and plants (see habitat map in appendix 1, location plan in appendix 2, proposal plan in appendix 3 and photos in appendix 4).
Botanical species are described with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).</td></tr>
<tr><td>Summary of Survey Findings

(UKHab codes used)
- Building (u1b5)
- Developed land; sealed surface (u1b)
- Vegetated garden with introduced shrubs and ruderals (u1 828 847 81)
- Scattered trees (u1 32)
- Bramble scrub (h3d)</td><td>Local notable habitats
The site does not contain any habitats listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). However, the site contains scattered trees which are of good quality and could be of value to local wildlife populations (as detailed in subsequent sections of this table). Other habitats within the site are common and widespread and have low ecological value. Notable habitats are present within 2km. There are no priority habitats within or immediately adjacent to the site. The nearest priority habitat is deciduous woodland which is located ~0.05km to the east of the site, as detailed in Table 1 below.
Table 1: Priority habitats within 2km of site.
<table>
<tr><th>Priority Habitat</th><th>Distance from Site (approx.)</th></tr>
<tr><td>Lowland mixed deciduous woodland</td><td>Small pockets located in all directions, the closest being ~0.05km east.</td></tr>
<tr><td>Ancient woodland</td><td>Small copses in all directions, the closest being ~0.12km east.</td></tr>
<tr><td>Woodpasture and parkland</td><td>Large patch located ~1.67km north of the site.</td></tr>
<tr><td>Traditional orchard</td><td>Single small pocket located ~1.77km west of the site.</td></tr>
</table>
On-site habitat descriptions
<u>u1b5</u> – <u>Buildings</u>
There is one main building onsite (B1) and two outbuildings (B2 and B3). B1 is a two-storey building with a gabled roof clad in clay tiles. B2 and B3 are single storey sheds built from plastic (B2) and wood (B3).

<u>u1b</u> – <u>Developed land/sealed surface</u></td></tr>
</table>

- **Non-native, ornamental hedge (h2b)**	Surrounding B1 and extending east are areas of developed land; sealed surface. The hard standing is comprised of concrete slabs and shingles and is of negligible habitat value for protected species. **u1 -** Built-up areas and gardens [vegetated garden 828, introduced shrubs 847, ruderals 81] To the north and south of the main dwelling are areas of vegetated garden with pockets of introduced shrubs scattered within. The vegetated garden is subject to management through mowing, resulting in a sward of approximately 3cm in length. Species composition is comprised of perennial ryegrass (D), clover (A), creeping buttercup (F), dandelion (O), daisy (O), self-heal (R), and plantain (R). Additionally, to the north-east of the site, the vegetated garden is also comprised of ruderals with species including buddleia (A), teasel (F), nettles (F), dock (O), willowherb (O), green alkanet (O), spurge (R) and cleavers (R). The introduced shrubs are comprised of pampas grass, firethorn, viburnum, laurel, Montpelier broom, rhododendron, Frasers photinia and rose. **u1 32** - Scattered trees Within the vegetated garden, mainly along the boundaries are scattered trees of which 14 are small and three are large in size. Species composition is comprised of spruce, cherry, magnolia, cypress, oak, hinoki cypress, false cypress, ash and hazel. The trees are young to mature in age and represent a fair to good structural condition. Individual trees condition assessment: a) >70% of the trees are native species. b) The tree canopy is predominantly continuous. c) >50% of the trees are mature. d) There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). e) No ecological niches.

	f) >20% of the tree canopy is oversailing vegetation beneath. **h3d** – Bramble scrub Along a section of the western boundary of the site are two small areas of bramble scrub. The scrub is comprised of predominately bramble with hazel saplings (R) and firethorn (R) within. **h2b** – Non-native and ornamental hedgerow Onsite there are three small ornamental hedgerows, with two located towards the centre of the site and the third located along a section of the southern boundary. Hedge 1 (to the south of the site) is comprised of cypress and is approximately 2m tall and 1.5m wide. Hedge 2 (located towards the centre of the site, adjacent to the hard standing) is comprised of privet and is approximately 1m tall and wide. Hedge 3 (located towards the centre of the site, within the northern section of vegetated garden) is comprised of cherry laurel and is approximately 1.5m tall and 1m wide.
Foreseen Impacts	**On-site habitats** The habitats on-site are widespread and not notable, however the proposed development will result in the loss of hard standing and a small area of vegetated garden with ruderals. This is likely to have a minimal impact on biodiversity due to the low ecological value of these habitats. **Notable habitats** No direct impacts to any notable habitats will occur as a result of the proposed development. Due to the proximity of the site to lowland mixed deciduous woodland (0.05km) and ancient woodland (0.12km east), indirect effects (e.g. pollution, dust, litter, surface run off, etc.) could occur during construction, however given the presence of surrounding physical barriers (Reading Road and rail lines), urban setting and small scale impacts, this is unlikely.
Recommendations	**On-site habitats** Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).

<table>
<tr><td></td><td>Notable habitats
None.</td></tr>
<tr><td colspan="2">Locality and Designated Sites</td></tr>
<tr><td>Summary of Survey Findings</td><td>On-site designations
The site is not subject to any designation.

Statutory designated sites (within 2km)
There is a single statutory site within 2km of the site, as detailed below:
Table 2: Statutory designated sites within 2km of the site
<table>
<tr><th>Designated Site Name</th><th>Distance from Site (approx.)</th><th>Reasons for Notification</th></tr>
<tr><td>Holt Copse & Joel Park Local Nature Reserve (LNR)</td><td>0.05km east</td><td>Habitats include lowland mixed deciduous woodland. Ancient semi-natural woodland and a large noctule bat roost.</td></tr>
</table>
Statutory designated sites (within 2km)
No national network sites (SAC, SPA, Ramsar) are located within 2km of the site.

Non-statutory designated sites
The presence of non-statutory designated sites within 2km of the site cannot be established without data from the Thames Valley Environmental Records Centre.</td></tr>
<tr><td>Foreseen Impacts</td><td>On-site designations
No impacts foreseen.

Statutory and non-statutory designated sites</td></tr>
</table>

	Although the site lies within close proximity to Holt Copse & Joel Park LNR, no impacts to this designation are anticipated due to the small scale of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers (Reading Road and rail lines).
Recommendations	**On-site designations** None required. **Statutory and non-statutory designated sites** Best practice measures to minimise the possibility of pollution affecting Holt Copse & Joel Park LNR must be implemented during construction.
Invasive / Non-native species	
Summary of Survey Findings	Rhododendron and buddleia were identified on the site which is listed as an invasive, non-native species under Schedule 9 of the Wildlife and Countryside Act 1981.
Foreseen Impacts	The proposed development is to be retained to the developed land; sealed surface and a small area of vegetated garden. Therefore, the likelihood of Rhododendron and buddleia escaping into woodland is very low.
Recommendations	No further surveys but remain vigilant.
Invertebrates	
Summary of Survey Findings	The habitats present on-site, including lawns, ornamental shrubs and trees, likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.
Foreseen Impacts	Hard standing and a small area of vegetated garden with ruderals will be removed during construction. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.
Recommendations	No further surveys.
Bats	
Summary of Survey Findings	**EPSL data** A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence

or will relocate to other known roosts sites in close proximity to the licensed site. There are 7 EPSLs within a 2km radius of site as detailed below:

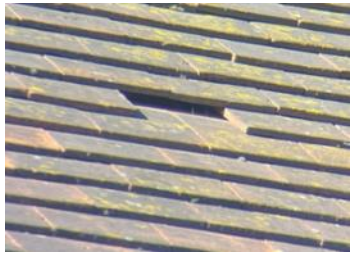
Table 3: EPSL records within 2km of the site

EPSL reference	Bat species affected	Distance from site	Impacts allowed by licence
2016-22176-EPS-MIT	Brown long-eared	0.16km west	Destruction of a resting place
EPSM2009-1496	Noctule bat	0.34km east	Destruction of a breeding and resting place
2015-11806-EPS-MIT	Common pipistrelle	0.8km south	Damage and destruction of resting place
2016-24486-EPS-MIT	Common pipistrelle	1.1km north	Damage and destruction of a resting place
2020-48489-EPS-MIT	Brown long-eared, common pipistrelle, soprano pipistrelle	1.2km north west	Damage and destruction of a resting place
2014-2425-EPS-MIT	Brown long-eared, common pipistrelle	1.53km south west	Destruction of a resting place
2015-13607-EPS-MIT 2015-13607-EPS-MIT-1	Common pipistrelle	1.6km north west	Destruction of a resting place

There are no Special Areas of Conservation designated for bats within 10km of the site, however Holt Copse & Joel Park LNR is designated for the presence of a large noctule bat roost.

Foraging and commuting habitat

Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of scattered trees and ornamental hedgerows. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. However, the hedgerows do not extend past the site. The wider landscape is comprised of woodland to the north-east and Emm Brook approximately 430m to the south-west, both of which could be utilised by foraging and commuting bats.

	Roosting habitat Buildings to be impacted by the proposed development are assessed for their suitability to support roosting bats below. There are a total of 3 buildings on site; the main dwelling (B1), and two outbuildings (B2 & B3). Only B1 was surveyed as this will be impacted by the proposed development.
B1 Building description	***Photographs***
Externally B1 is a detached two-storey brick-built building with a cross-pitched and gabled roof clad in clay roof tiles. The roof tiles are in relatively good condition with a few raised and missing tiles under which bats could roost. These include one missing tile on the eastern elevation, one missing tile on the southern elevation, raised tiles at the base of the chimney on the eastern elevation and missing mortar under verge tiles on the southern elevation. There is a flat roofed conservatory on the western elevation of the building, as well as a partial single storey flat roof, with a front tiled section, on the southern elevation. The flat roof on the conservatory is comprised of corrugated metal and the flat roof on the southern elevation is comprised of lead flashing and shingle. Both are in good condition with no gaps in which bats could roost. The doors and windows are UPVC and appear in excellent condition with no suitable bat roosting sites. The brickwork around the building is rendered and appears in excellent condition with no gaps or cracks in which crevice-dwelling bats could roost. The brick gable ends are all rendered and are in very good condition with no gaps around the tops of the gable ends.	**Eastern elevation:**    

There are timber soffits and bargeboards around the building which are generally in good condition. However, there is a gap in the soffit of the single storey extension on the eastern elevation (circled in yellow opposite) which could allow access into the soffit box.

There are two chimneys located on the roof of the building. The brickwork on the chimneys is in good condition. There is lead flashing around the bases of the chimney which for the chimney located towards the western elevation is flat and without gaps, whereas the lead flashing is raised around the base of the chimney on the northern elevation.

Southern and Western elevations:

Northern elevation:

<table>
<tr><td colspan="2">Internally
The loft space was not fully accessible as there was a large water tank immediately to the north when entering the loft space which prevented access into the northern section of the loft. However, the loft could be seen around the edge of the water tank to see if there were access points into the loft. No daylight could be seen from the vantage point towards the southern elevation. There is one loft space within the main roof void of B1. The roof structure is built from modern timber beams including the ridge beam. The roof is lined with insulation and wooden MDF boarding, which is in relatively good condition, except directly above the water tank. The floor of the loft space is lined with mineral wool insulation and there are timber boards in places. There are cobwebs around the ridge beam and roof to floor cobwebs which could indicate a lack of internal flying activity from void dwelling bats, such as brown long-eared bats.</td><td>  </td></tr>
<tr><td>Foreseen Impacts</td><td colspan="2">Roosting habitat [Buildings]
The proposed development will result in the extension of this building on the eastern and southern elevations. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.

Foraging and commuting habitat
The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. However, the proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.

Artificial lighting
The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.</td></tr>
<tr><td>Recommendations</td><td colspan="2">Roosting habitat [Buildings]</td></tr>
</table>

	One bat emergence survey is required during the active bat season (May – September) to confirm presence or likely absence of a bat roost in the building. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. Surveys should be a minimum of three weeks apart. Three surveyors are required to provide full coverage of the building's elevations to look for emerging/re-entering bats. An infrared camera should also be employed as part of the survey to see where any specific roost locations are located. Surveys are likely to be required before planning permission can be granted. If bat roosts are confirmed in the building, two additional surveys will be required to inform an EPSL application to Natural England. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission. **Foraging and commuting habitat** No further surveys are required. **Artificial lighting** 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 **Suggested biodiversity enhancements** Enhancements are dependent on the outcome of further surveys.
Birds	
Summary of Survey Findings	**Buildings** No evidence of nesting birds was identified on or within B1. B1 is deemed to provide negligible habitat value for nesting birds due to a lack of suitable nesting sites or access points.

	Trees and vegetation No bird nests were identified within the vegetation on-site, however they all offer nesting opportunities and nest-building resources for birds. **Barn owls** The site does not appear to provide any suitable nesting sites for barn owls. **Overwintering birds** Due to the small size of the site and the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds.
Foreseen Impacts	**Buildings/trees** No impacts are anticipated on nesting birds as a result of the proposed development. **Barn owls** None foreseen. **Overwintering birds** None foreseen.
Recommendations	**Buildings/trees** 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. **Barn owls** None required.

	Overwintering birds None required. **Suggested biodiversity enhancements** The installation of a minimum of one bird box on mature trees around the site boundaries will provide additional nesting habitat for birds e.g. Schwegler 1B Nest Boxes, Schwegler 2H Robin Boxes, Woodstone Nest Box, or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.
Reptiles	
Summary of Survey Findings	**EPSL data** A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site. **Habitat suitability** There is no suitable habitat present on site for reptiles due to a lack of habitats such as scrub and rank grassland which would offer refuge for these species. The dominant habitat onsite (vegetated garden) is considered unsuitable for reptiles due to the species content (common and widespread species with minimal diversity) and associated management regime, where at the time of the survey the grassland was recorded as being a relatively short sward. Given the management regime employed on the grassland, as well as the species composition, it is considered unlikely that this faunal group would be present within this habitat. However, the area of bramble scrub could provide sheltering and hibernation opportunities for reptiles, albeit limited and sub-optimal (as it is surrounded by managed grassland and fencing). In any case, the bramble scrub is to be retained as part of the development proposals. Further, the site is surrounded by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration and therefore reptiles are considered unlikely to migrate from any nearby suitable habitats to the development site. As such it is likely that reptiles are absent from the development site.

	Wider landscape The woodland which is located 80m north-east of the site is of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. This habitat provides optimal foraging, commuting, and refuge opportunities for reptiles and are well connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these adjacent habitats cannot be discounted. However, the woodland is separated from site by the A329 which is a very busy road with high kerbs. Additionally, the boundaries of the site are encompassed by urban development (i.e. roads and buildings) which is considered sub-optimal for reptile migration and therefore reptiles are considered unlikely to migrate from any nearby suitable habitats to the development site. As such it is likely that reptiles are absent from the development site.
Foreseen Impacts	Hard standing and a small area of vegetated garden with scattered ruderals will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present. The site does not form a connective pathway or stepping stone between areas of suitable reptile habitat in the wider landscape and the development is unlikely to lead to reptile habitat fragmentation.
Recommendations	A precautionary working method will be implemented for widespread reptiles during construction, including the following measures: • 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 advise must be sought from a suitably qualified ecologist.
Amphibians	

Summary of Survey Findings

EPSL and survey data

A review of the MAGIC database returned 3 granted EPSL records for great crested newts within 2km of the site as shown in table 4 below.

Table 4: EPSL records within 2km of the site

EPSL reference	Licence start date	Distance from site	Impacts allowed by licence
2020-47555-EPS-MIT 2020-47555-EPS-MIT-1 2020-47555-EPS-MIT-2	01/08/2020	1.2km north east	Damage and destruction of a resting place
2019-41221-EPS-MIT 2019-41221-EPS-MIT-1	01/08/2019	1.5km north west	Damage and destruction of a resting place
2014-915-EPS-MIT 2014-915-EPS-MIT-2 2014-915-EPS-MIT-1	10/05/2013	1.7km east	Damage and destruction of a resting place

The MAGIC database also returned evidence indicating the presence of great crested newts resulting from historic pond surveys undertaken in 2018. These records are located 1.9km north. Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton *et al.* 2001). As such, the great crested newt metapopulation known to be present over 1km from the site are not suitably connected to the site.

Aquatic habitat suitability (including ponds within 500m)

Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001).

There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of a singular pond within 500m; the pond (P1) is located ~0.46km south east of the site and is situated on the far side of the A329. This landscape feature is likely to

represent a significant barrier to dispersal due to heavy traffic flow and high kerbs along the road, eliminating connectivity to the site for great crested newts.

Terrestrial habitat suitability

The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and amenity grass offer sub-optimal habitat for terrestrial amphibians. The hedgerows may offer refuge for these species, however given the urban nature of the surrounding landscape (i.e. dominated by roads and hard standing which are sub-optimal for amphibians) it is unlikely that amphibians will migrate on to site.

Foreseen Impacts

When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is likely to result in the loss or significant disturbance of 0.02044ha of vegetated garden with scattered ruderals. If great crested newts are present within the pond ~0.46km to the south-east of the site, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces a **Green risk score**, which states: **Offence Highly Unlikely** (see F**igure 1** below).

Component	**Likely effect** (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
	Maximum:	0.001
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Figure 1: Screenshot of Natural England GCN rapid Risk Assessment completed in accordance with the proposed development plans.

Recommendations

Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures:

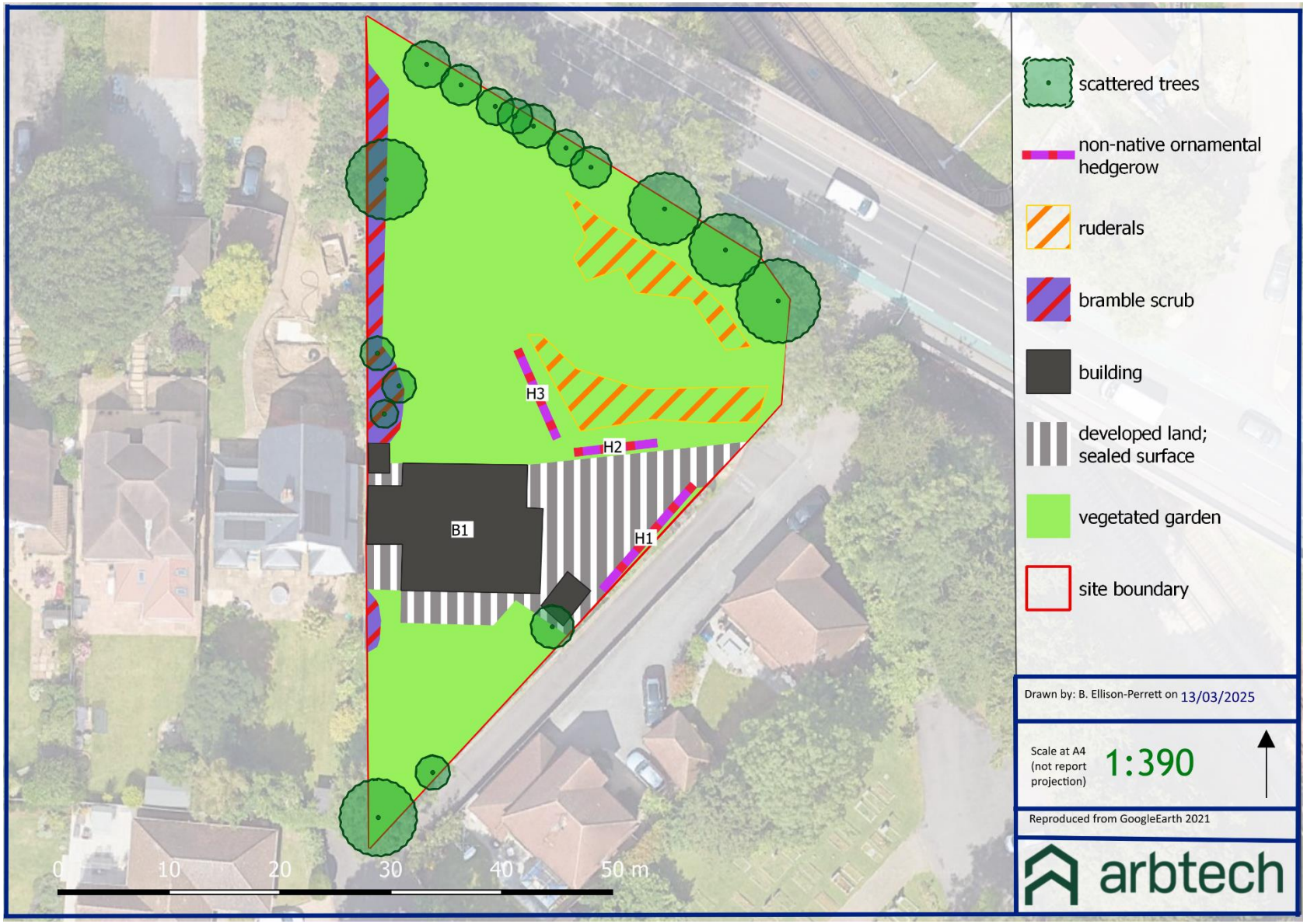
- Vegetation will be maintained at a short sward (5cm) to discourage amphibians.
- Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas.

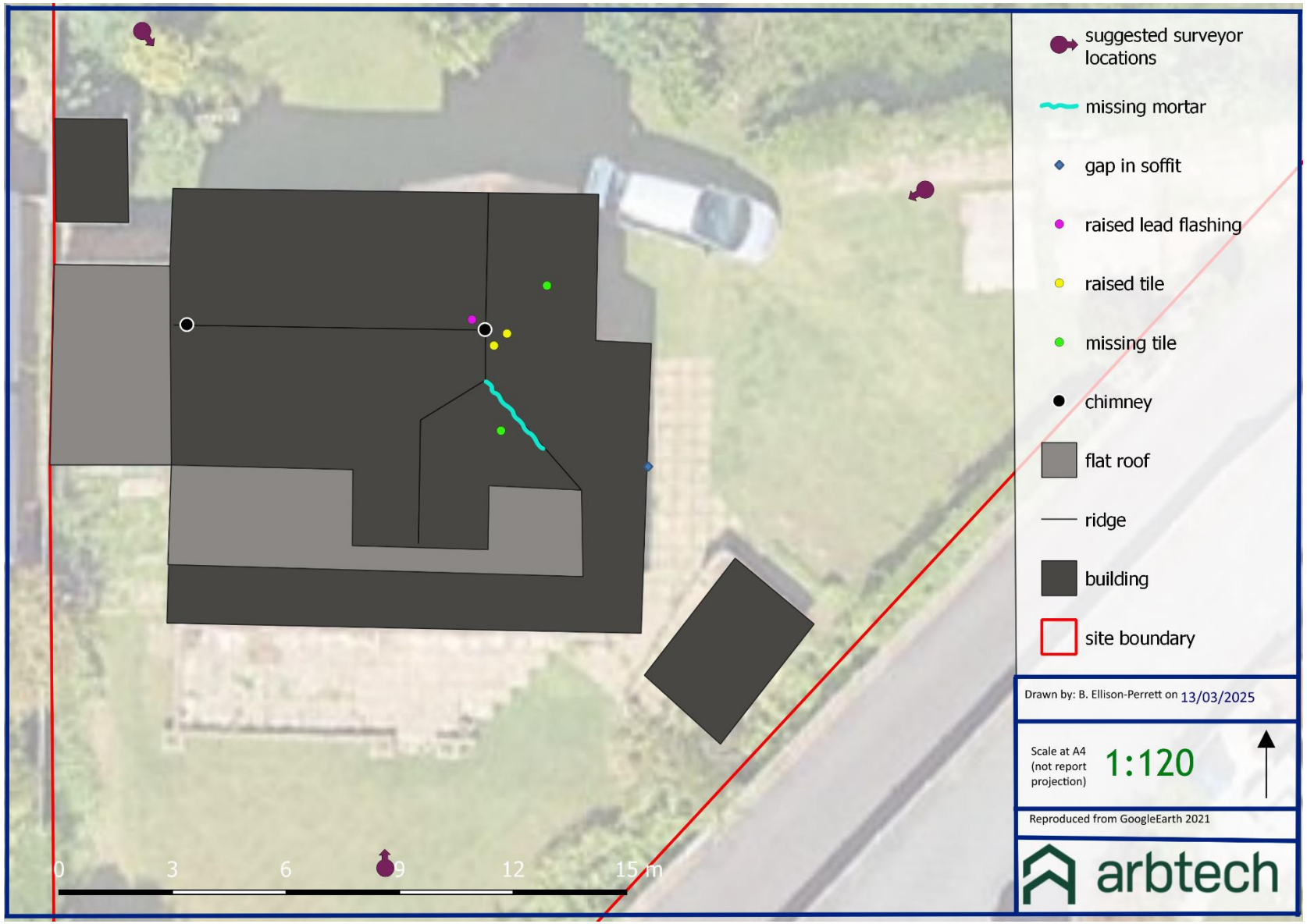
	• Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any common amphibians 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 great crested newt is identified, works must cease and advise must be sought from a suitably qualified ecologist.
Badger	
Summary of Survey Findings	No badger setts were noted on site or within a 30m radius of the site. The site is considered unsuitable for badgers given the lack of suitable sett excavation areas/ground. Further, there is limited suitable badger foraging habitat on site given the lack of fruiting trees/scrub. The site is also surrounding by urban development (i.e. roads and buildings), which is sub-optimal habitat therefore reducing the likelihood of badgers being present within the surrounding area of the site.
Foreseen Impacts	Hard standing and vegetated garden with scattered ruderals will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.
Recommendations	Owing to the nature of the proposed development and the low potential for impacts to bat roosts, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures: • 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 badgers could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. In the unlikely event that a badger sett is identified, works must cease and advise must be sought from a suitably qualified ecologist.

Riparian animals	
Summary of Survey Findings	A review of the MAGIC database returned no granted EPSL records for otters or water voles within 2km of the site. There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance.
Foreseen Impacts	No impacts are anticipated on riparian animals as a result of the proposed development.
Recommendations	None required.
Hazel dormouse	
Summary of Survey Findings	**EPSL data** A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site. **Habitat suitability** Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. Furthermore, for isolated habitats in the UK, research indicates that dormice require 20ha of woodland habitat to support a viable population (Bright *et al.* 1994). The hedgerows onsite do not run the full length of the boundaries and so lack suitable connectivity for the site. However, the site is enclosed by urban infrastructure including roads and significant residential development. These landscape features fragment suitable dormice habitat in the wider landscape and are likely to limit dispersal opportunities to the site.
Foreseen Impacts	No impacts are anticipated on hazel dormice as a result of the proposed development.
Recommendations	None foreseen.
Other e.g. hedgehog	
Summary of Survey Findings	Habitats recorded on site are assessed to provide foraging, and refuge opportunities for hedgehogs, in the form of vegetated garden and hedgerows. However, given the limited extent of habitats present on site and the presence of more extensive habitat coverage locally, the site is unlikely to represent a significant resource for hedgehogs in the context of the wider landscape. No evidence indicating the presence of hedgehogs was recorded. Although no evidence indicating the presence of hedgehogs was recorded during the site survey, the future presence of hedgehogs foraging and commuting on site cannot be discounted.

Foreseen Impacts	Hard standing and a small area of vegetated garden with scattered ruderals will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.
Recommendations	Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures: • 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. 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. **Suggested biodiversity enhancements** The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: • Planting fruit bearing trees and species-rich grassland to increase foraging opportunities. • Creation of brash piles or installation of hedgehog houses in shady areas. • Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

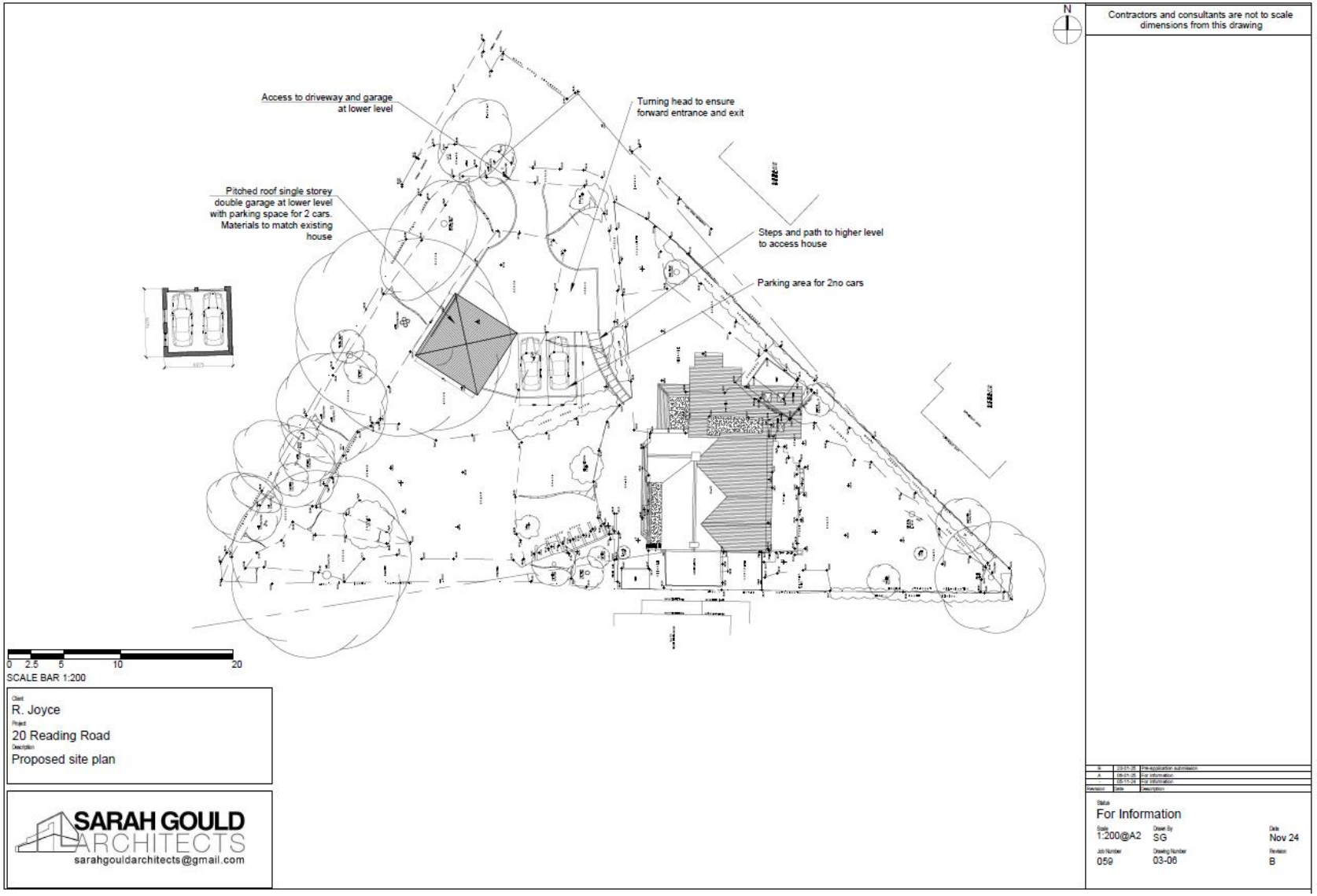
Appendix 1: Survey/Habitat map




suggested surveyor locations
missing mortar
gap in soffit
raised lead flashing
raised tile
missing tile
chimney
flat roof
ridge
building
site boundary
Drawn by: B. Ellison-Perrett on 13/03/2025
Scale at A4 (not report projection)
1:120
Reproduced from GoogleEarth 2021
arbtech
0
3
6
9
12
15 m

Appendix 2: Location map

Appendix 3: Proposed plan



Appendix 4: Habitat Photos

Outbuildings	
Photograph	**Description**
 	B2 and B3 onsite

Vegetated garden	
Photograph	**Description**
	Area of vegetated garden to the south of the site
	Area of vegetated garden with scattered ruderals to the north-east of the site
Introduced shrubs	
Photograph	**Description**

	Introduced shrubs scattered within the vegetated garden onsite
Scattered trees	
Photograph	**Description**
	Scattered trees, located along the boundaries of the site

Non-native ornamental hedgerow	
Photograph	**Description**
  	Hedge 1 (cypress hedge along part of the eastern boundary) Hedge 2 (privet hedge, adjacent to the hard standing) Hedge 3 (laurel hedge, within the vegetated garden)
Bramble scrub	
Photograph	**Description**

	Area of bramble scrub along a section of the western boundary of the site
Developed land; sealed surface	
Photograph	**Description**
	Hard standing onsite, surrounding B1 and extending east

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