

Preliminary Ecological Appraisal

Survey site:

Berkshire County Sports Club, Sonning Lane, Sonning, Reading RG4 6ST

Client:

HP Architecture

Survey date:

19th September 2024

Project:

This report is prepared to inform a planning application with the Berkshire County Council. The proposal is described as:

The construction of three sheltered paddle courts, three tennis courts and additional parking.

[Unsubmitted]

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

Site Location and Context					
The rectangular survey site is centred on National Grid Reference SU 75684 75020 and has an area of approximately 0.48ha. The site consists of hardstanding surrounded by a decorative privet hedgerow on the south and western boundaries and a beech hedgerow to the north and eastern boundaries. There are also 2 areas of grassland located within the site with the largest an area to the eastern aspect of site and a small parcel to the south-western aspect of site. An asphalt road provides access to the site from the main road. The site is surrounded by recreational fields to the north and west of the site, agricultural fields to the south of the site and Caversham lakes to the east. The wider landscape consists of broadleaved woodland, agricultural fields, residential properties and watercourses. The River Thames passes site 500 m to the east of site.					
Survey Details					
The site survey was undertaken by Blair McNicol BSc (hons), MSc, with 5 years ecology experience.					
Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
19/09/2024	16	83	40	0	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. There were no specific limitations to the survey.					

Ecological Survey Factor Conclusion, Impact or Recommendations	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.
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).	
<i>Summary of Survey Findings</i> <i>(UKHab codes used)</i>	The site contains Species rich native hedgerow which is listed as a habitat of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Other habitats within the site are common and widespread and have low ecological value. Further notable habitats are present within 2km. On-site habitat descriptions <u>u1b – Developed land/sealed surface</u> The main body of site is a sealed surface currently being used as tennis courts. The site also includes the access road leading from the main road to the tennis courts which is a sealed surface. <u>g3c – Other neutral grassland</u> The survey site has 3 areas of other neutral grassland, with the largest area to the east and southeast of the site. These sections where frequently managed and mowed regularly with average sword height <5cm with some larger unmanaged strips in the area to the east. There is another small area of other neutral grassland just outside of the redline boundary to the south-east of site, that has also been assessed for potential BNG enhancements. All areas were dominated with cocksfoot (D), timothy (D), and common bent (D). With frequent species consisting of creeping buttercup (F), spear thistle (F), red clover (F), white clover (F), ragwort, hawks beard, red campion (F), dandelion (O) and rare occurrences of lemon balm (R) and mallow (R). <u>h2a5 – Species-rich native hedgerow</u> The eastern boundary of site consists of a species-rich hedgerow with blackthorn (D) and hawthorn (D) being the dominant species and other species present sessile oak (O), horse chestnut (O), ash (F), holly (O) and sycamore (F). The ground flora consisted of cocks foot (D), common nettle (D), knapweed (O), bramble (F) and night shade (O). <u>h2a6 – Other native hedgerow</u> The north-eastern and eastern boundaries of the hard standing consist of a beech (D) hedgerow with occasional bramble (O). The ground flora consisted of ruderal species such as mallow (O), common nettle (D) and one specimen of small nettle (R) and lemon balm (R).

	<u>h2b – Non-native and ornamental hedgerow</u> Surrounding the hardstanding which forms the main body of site there is an ornamental privet (D) hedgerow to the west, south and north-west boundaries. Ground flora was sparse with occasional ruderal flora consisting of ground ivy (D), ragwort (O), dandelion (O), common ivy (A) and creeping thistle(F). <u>Scattered trees - 32</u> Outside the northern boundary of the site there is an area of scattered horse chestnut (D), these are within 6 m of the proposed developments. Local notable habitats Patches of lowland mixed deciduous woodland (LMDW) are present in close proximity to the site. The closest is located ~0.1km to the west, with a second patch of LMDW ~0.1km to the southeast. The trees on-site likely have functional connectivity to these patches of woodland, given their proximity to the site and the presence of numerous trees throughout the landscape. LMDW is classed as a priority habitat under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006. Further priority habitats are present within 2km of the site, including mosaic habitat, wood pasture and parkland, ponds and lakes, fens, and traditional orchards.
<i>Foreseen Impacts</i>	On-site habitats The habitats on-site are widespread and not notable; however, the proposed development will result in the loss of ~0.05ha vegetated habitat. This is likely to have minimal impact on biodiversity considering the small area of commonplace habitat (other neutral grassland and other native hedgerow) being lost. Notable habitats No direct impacts to any notable habitats will occur as a result of the proposed development. However, due to the proximity of the site to LMDW (0.1km northwest and 0.1k southeast), indirect effects (e.g. pollution, dust, litter, surface run off, etc.) could occur during construction.
<i>Recommendations</i>	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). Any hardstanding areas should be limited as much as possible in favour of planting areas and are recommended to use grasscrete or other porous surface treatment with as much botanical, vegetative elements as possible.

	To compensate for the proposed habitat losses at the site, the following habitat creation measures should be incorporated: All sections of other native hedgerow that is lost, should be compensated by planting a native species rich hedgerow with a minimum of 5 woody species. Notable habitats Best practice measures to minimise the possibility of pollution affecting the nearby woodland must be implemented during construction. Biodiversity net gain The Environment Act (2021) requires all developments (excluding exemptions) to deliver a 10% net gain in biodiversity. Therefore, the planning application must be accompanied by a landscaping/habitat creation and enhancement strategy, biodiversity net gain calculations and a habitat management and monitoring plan to ensure the proposed development delivers a 10% net gain.
Locality and Designated Sites	
<i>Summary of Survey Findings</i>	On-site designations The site is not subject to any designation. Statutory designated sites (within 2km) There are no known statutory sites within 2km of the site. Statutory designated sites (within 10km) No national network sites (SAC, SPA, Ramsar) are located within 10km. Non-statutory designated sites The Local Nature Reserve (LNR) Ali's Pond is located 0.2km south of the site, this site has historically been a GCN breeding pond.
<i>Foreseen Impacts</i>	On-site designations No impacts foreseen. Statutory and non-statutory designated sites No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the recreationally developed location of the site with surrounding physical barriers such as playing field, buildings, car parks and tennis courts.

<i>Recommendations</i>	On-site designations None required. Statutory and non-statutory designated sites None required.
Invasive / Non-native species	
<i>Summary of Survey Findings</i>	No problematic invasive and non-native species recorded on site.
<i>Foreseen Impacts</i>	N/A
<i>Recommendations</i>	No further surveys but remain vigilant.
Invertebrates	
<i>Summary of Survey Findings</i>	The habitats present on-site, including grassland, hedgerows 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.
<i>Foreseen Impacts</i>	Other native hedgerow and grassland 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.
<i>Recommendations</i>	No further surveys.
Bats	
<i>Summary of Survey Findings</i>	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 11 EPSLs within a 2km radius of site as detailed below:

	EPSL reference	Bat species affected	Distance from site	Impacts allowed by licence
	2018-37707-EPS-MIT	Soprano Pipistrelle	0.3km east	Destruction of a resting place
	2019-44293-EPS-MIT	Brown Long-eared Bat, Common Pipistrelle. Soprano Pipistrelle	0.4km south-east	Destruction of a resting place
	2020-48093-EPS-MIT	Brown Long-eared Bat, Common Pipistrelle. Soprano Pipistrelle	0.5km south-east	Destruction of a resting place
	2018-38132-EPS-MIT	Brown Long-eared Bat. Soprano Pipistrelle	0.7km south-east	Destruction of a resting place
	2018-34839-EPS-MIT-1	Soprano Pipistrelle	0.7km south-west	Destruction of a resting place
	2020-48694-EPS-MIT	Common Pipistrelle. Soprano Pipistrelle	0.75km south-west	Allow damage of a resting place and destruction of a resting place
	2015-17476-EPS-MIT	Brown Long-eared Bat, Soprano Pipistrelle	0.8km south	Destruction of a resting place
	2020-48353-EPS-MIT	Soprano Pipistrelle	0.9km south	Destruction of a resting place
	EPSM2012-4144	Common Pipistrelle. Soprano Pipistrelle	1km south	Destruction of a resting place
	2018-36568-EPS-MIT	Brown Long-eared Bat, Common Pipistrelle	1.6km south-east	Allow damage of a resting place
	2014-2526-EPS-MIT	Soprano Pipistrelle	1.9km north-east	Allow damage of a resting place
	Foraging and commuting habitat Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of grassland and species-rich hedgerow with trees. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Most notably, the hedgerows on site are mature and extend beyond the site adding to the continuity of vegetated linear features present in the wider landscape. Bats are well known to utilise linear features to aid navigation whilst travelling between foraging resources and roost sites. Roosting habitat None noted at site.			
Foreseen Impacts	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.
<i>Recommendations</i>	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
Birds	
<i>Summary of Survey Findings</i>	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. No habitat for schedule 1 birds was observed. 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.
<i>Foreseen Impacts</i>	Buildings/trees The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests. Barn owls None foreseen. Overwintering birds None foreseen.

<i>Recommendations</i>	Buildings/trees 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. 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.
Reptiles	
<i>Summary of Survey</i> <i>Findings</i>	EPSL data A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site. Habitat suitability The hedgerows at site provide suitable habitat to support reptiles. However, the site is surrounded heavily managed recreational grassland with a sward height of <5cm and 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 sections of the woodland in the wider landscape are of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. These adjacent habitats provide 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.
<i>Foreseen Impacts</i>	Although a small area of suitable habitat is being removed as part of the development, 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>	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 advice must be sought from a suitably qualified ecologist. Suggested biodiversity enhancements The site could be enhanced for reptiles post-development with the inclusion of log piles (created from felled materials) and planting of areas of native shrubs, to provide sheltering opportunities.
Amphibians	
<i>Summary of Survey Findings</i>	EPSL and survey data A review of the MAGIC database returned no granted EPSL records for great crested newts within 2km of the site. However, 1 positive class survey licence return or DLL historic survey data (2017 – 2019) were present within 2km of 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 two ponds within 500m; the pond in the LNR Ali's Pond (P1) is located ~0.1km north of the site and the other pond (P2) is located 0.15km north of the site. There is a car park, grassland and hedgerow margins between the ponds and site, which creates habitat connectivity for great crested newts. A pond map showing approximate pond locations is provided in Appendix 4.

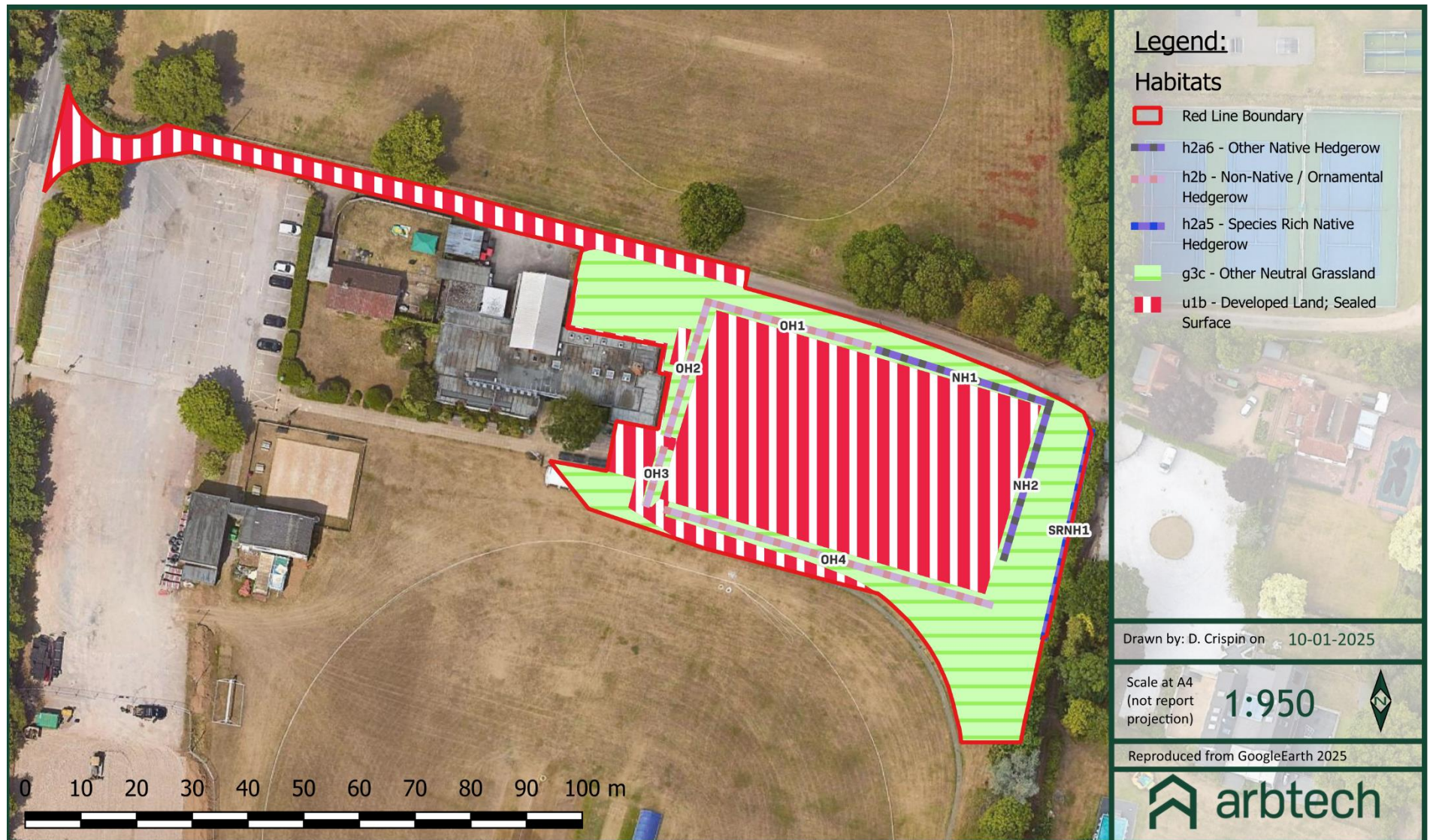
	Terrestrial habitat suitability The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and amenity grass offer sub-optimal habitat for terrestrial amphibians. The hedgerows may offer refuge for these 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. However, there is suitable terrestrial habitat across the wider landscape so amphibians may commute through site to optimal habitat in surrounding area.
<i>Foreseen Impacts</i>	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 0.35ha of grassland, hedgerow and hardstanding. If great crested newts are present within the pond 125m to the north 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 Figure 1 below).
<i>Recommendations</i>	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: • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed 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 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 advice must be sought from a suitably qualified ecologist. Suggested biodiversity enhancements The site could be enhanced for amphibians post-development through creation of amphibian hibernacula using rubble and logs from site clearance. Information on how to construct a hibernaculum can be found here: https://www.wiltshirewildlife.org/hibernaculum

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	
<i>Summary of Survey Findings</i>	EPSL data and local records A review of the MAGIC database returned no granted EPSL records for hazel dormice within 2km of the site. Habitat suitability Habitats on site are assessed to provide foraging, commuting, and nest building opportunities for dormice in the form of the species-rich hedgerows with trees. 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.
<i>Foreseen Impacts</i>	Species rich hedgerow will be removed during construction. The loss of such habitats is likely to be inconsequential to local dormouse 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 dormice, if present.
<i>Recommendations</i>	None foreseen.
Other e.g. hedgehog	
<i>Summary of Survey Findings</i>	The hedgerow onsite provides foraging and commuting opportunities for hedgehogs, with woodland habitat nearby.
<i>Foreseen Impacts</i>	Hedgerow 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.
<i>Recommendations</i>	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.
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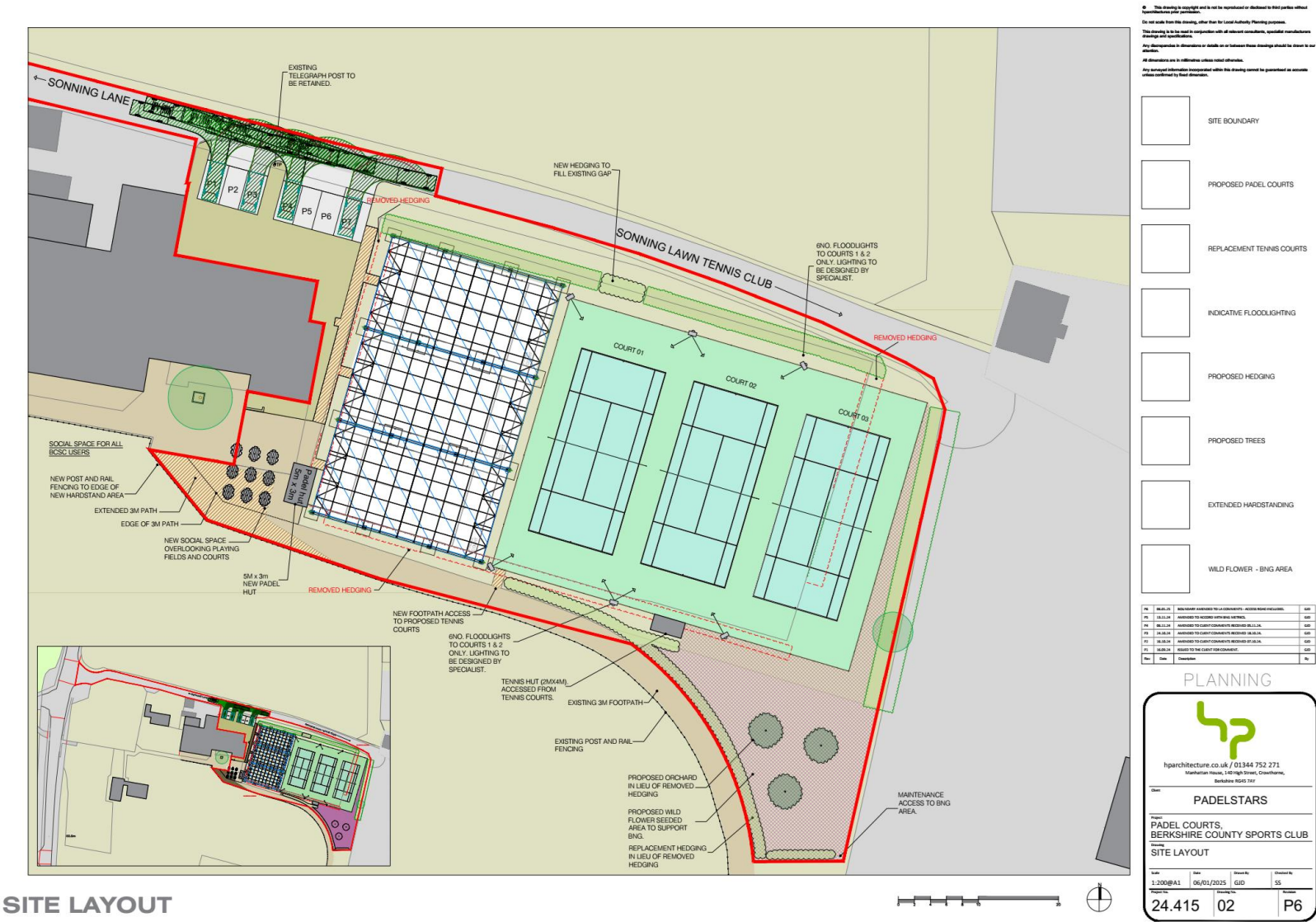
Appendix 1: Survey/Habitat map



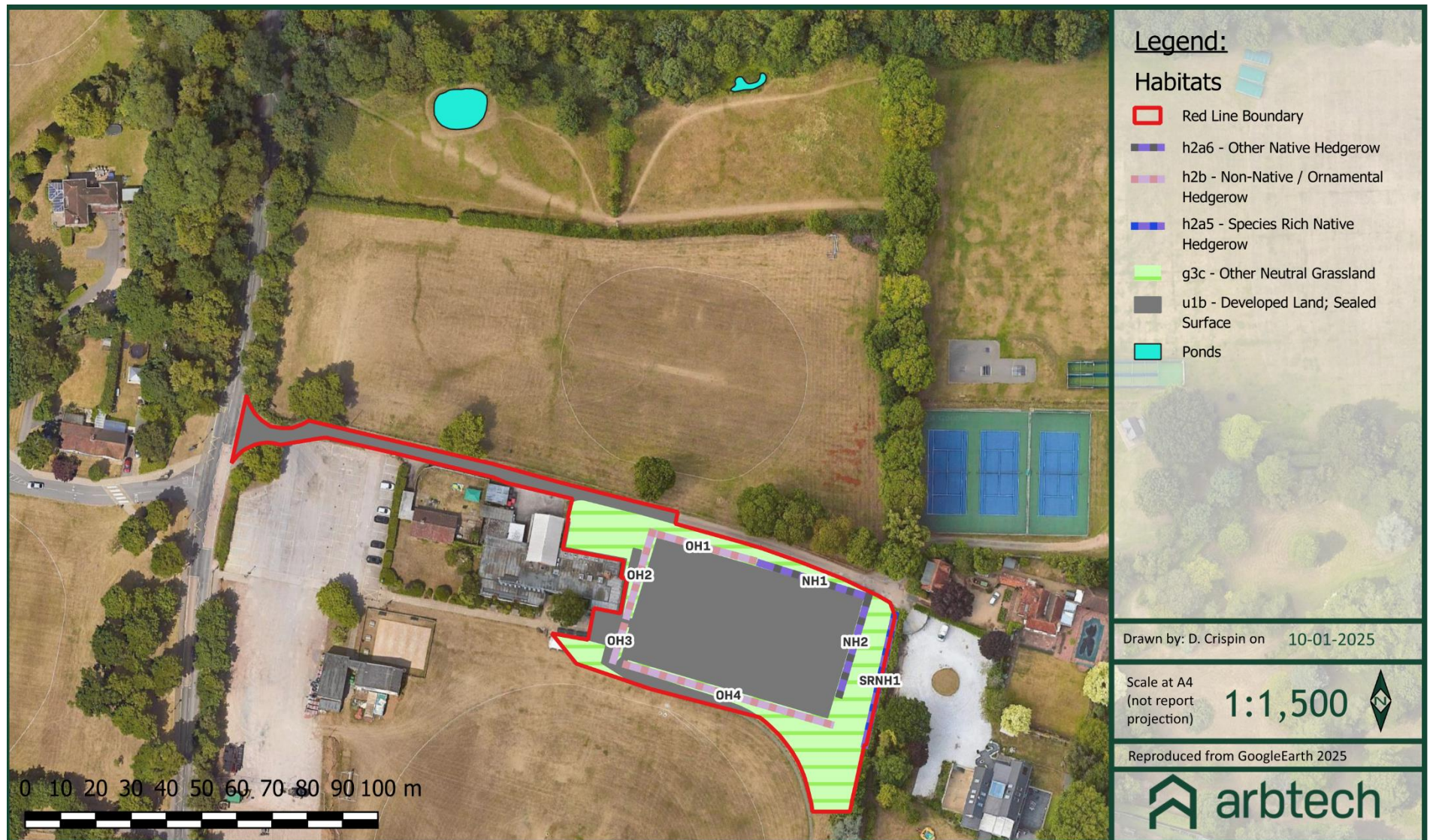
Appendix 2: Location map



Appendix 3: Proposed plan



Appendix 4: GCN Pond Map within 500m



Appendix 4: Habitat Photos

South-West Corner of Site	
Photograph	Description
	Figure 1: Facing north-west, showing ornamental hedgerow, grassland and hardstanding boundary.

Northern Boundary	
Photograph	Description
	Figure 2: Facing west, showing the northern boundary and beech hedgerow and tarmac road outside the site boundary.)

Northern Boundary	
Photograph	Description
	Figure 3: Facing east, showing the northern boundary and tarmac access road to the the site boundary.)

North-Eastern Boundary	
Photograph	Description
	Figure 4: Facing east, showing the north-eastern boundary where the tarmac access road joins the main road at the site boundary.)

Other Neutral Grassland and Hedgerow	
Photograph	Description
	Figure 5: Facing south, showing area of neutral grassland, species-rich native hedgerow and beech hedgerow to the east of site

Grassland and Species rich hedgerow	
Photograph	Description
	Figure 6: Facing North, showing species-rich hedgerow and neutral grassland

Other neutral Grassland and Ornamental hedgerow	
Photograph	Description
	Figure 7: Facing east, showing southern boundary of site.

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Proof	0.5	Mel Reid BSc (Hons) MRes MRSB, Senior Consultant	14/10/2024
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