

BRACKNELL DATA CENTRE

Ecological Appraisal
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Centre
Ecological Appraisal
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Approval for issue

Camilla Fisher

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1 INTRODUCTION

1.1 Purpose and Scope

- 1.1.1 This Ecological Appraisal accompanies and supports a planning application for the redevelopment of land at Cain Road, Amen Corner, Bracknell, Berks. It forms one of a suite of technical reports forming part of a planning application for a data centre and associated infrastructure. The Application Site is in the administrative area of Bracknell Forest Council (SBC).
- 1.1.2 The application seeks consent for a data centre building (containing data hall, associated electrical and AHU Plant Rooms, loading bay, maintenance and storage space, office administration area and plant at roof level), emergency generators and emission stacks, diesel tanks and filling area, electrical switch room, a water sprinkler pump room and storage tank, a gate house / security building, site access, internal access roads, hard and soft landscaping.
- 1.1.3 The purpose of this report is to provide an ecological baseline for the Application Site and to identify the potential effects on terrestrial ecology as a result of the proposed development.
- 1.1.4 The EA aims to:
- map and assess the habitats present on the Application Site;
 - assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary;
 - provide outline recommendations for mitigation measures as appropriate; and,
 - make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.
- 1.1.5 Baseline information on the Application Site has been obtained from a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out in accordance with CIEEM guidance on Preliminary Ecological Appraisal (PEA). The PEA comprises:
- a desk-based review of designated sites and records of protected species and other species that could present a constraint;
 - mapping and assessment of the habitats present on the Application Site;
 - assessment of the potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary
- 1.1.6 The recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS. The surveys and report have been prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 The Application Site

- 1.2.1 The Application Site is located on land at Cain Road, Bracknell RG12 1HN. The Application Site is bisected by Beehive Road: the 'main site' is approximately 7.5ha in size and is currently occupied by two three-storey office buildings (plus ancillary buildings) surrounded by an extensive area of car parking with intermittent amenity tree, shrub and hedgerow planting. The remainder of the Application Site comprises a former Recreation Ground located to the south west of the main site on the opposite side of Beehive Road and extends to approximately 2.4ha. It comprises a waterbody bounded by broadleaved woodland with areas of grassland and there is a small pavilion building.
- 1.2.2 The Application Site is located on the edge of the urban edge of Bracknell within an area of mixed office, industrial and residential development.
- 1.2.3 The mainline railway and the A329 dual carriageway are located beyond the southern boundary of the former Recreation Ground. The western boundary adjoins a small block of ancient woodland (Riggs Copse) which is enclosed by the railway, a recycling site and residential properties. Further blocks of ancient woodland are present in the wider area to the west.

2 LEGISLATION AND POLICY

- 2.1.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application is explained in the relevant sections of this report.

2.2 Legislation

- 2.2.1 Relevant legislation in relation to habitats, species and protected sites are;
- Wildlife and Countryside Act 1981 (as amended)
 - Conservation of Habitats and Species Regulations 2017
 - Countryside and Rights of Way Act
 - Hedgerow Regulations 1997
 - The Protection of Badgers Act 1992
 - The Natural Environment and Rural Communities (NERC) Act 2006
- 2.2.2 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Appendix A.

2.3 National Planning Policy

National Planning Policy Framework

- 2.3.1 The National Planning Policy Framework (NPPF 2019) sets out the Government's planning policies for England with technical guidance provided in the ODPM Circular 06/2005;
- 2.3.2 When determining planning applications, the NPPF stipulates that the local planning authority should apply the principles of avoidance, mitigation and as a last result compensation .
- 2.3.3 Key elements of the NPPF in relation to biodiversity include:
- Presumption in favour of sustainable development
 - Protecting and enhancing valued landscapes, sites of biological and geological value including their soils
 - Minimising impacts on and providing net gains for biodiversity including the establishment of coherent ecological networks that are more resilient to current and future pressures
 - Safeguarding components of wildlife rich-habitats and wider ecological networks
 - Promoting the conservation, restoration and enhancement of priority habitats and ecological networks and the protection and recovery of priority species.

2.4 Local Planning Policy

Bracknell Forest Borough Local Plan (2002)

- 2.4.1 This document was adopted in January 2002. Whilst some of the policies have been replaced by the Core Strategy and the Site Allocations Plan, the following saved policies are relevant to this proposal.
- Policy EN1 & EN2 relates to Protecting and Supplementing trees and hedgerows setting out that consent will not be granted where the "...destruction of trees and hedgerows which are important to the retention ofii) The Character and appearance of the landscape or townscape." And requiring "... developers to include in their schemes the planting of indigenous species appropriate to the setting and character of the area and a variety of other

indigenous plants according to circumstances, these may include grasses, heathland or wetland species.”

- Policy EN20 ‘Design Considerations in New Development’ sets out that: In their determination of applications for planning permission the borough council will have regard to the following considerations:
 - Be in sympathy with the appearance and character of the local environment and appropriate in scale, mass, design, materials, layout and siting, both in itself and in relation to adjoining buildings, spaces and views;
 - Retain beneficial landscape, ecological or archaeological features and, where reasonable, enhance these features;
 - Ensure that the design of the development promotes, or where necessary creates, local character and a sense of local identity;
 - Provide adequate space for private use and visual amenity where appropriate
 - Provide appropriate layout and design features to improve personal and general security, including the natural surveillance of public spaces, including footpaths, roads and open space;
 - Avoid the loss of important open areas, gaps in frontages and natural or built features (such as trees, hedges, walls, fences and banks) which it is desirable to retain;
 - Not adversely affect the amenity of surrounding properties and adjoining area.

3 BASELINE METHODOLOGY

3.1 Previous Surveys

- 3.1.1 A Phase 1 Habitat Survey was carried out in May 2018 by FPCR. A series of surveys were subsequently undertaken by Ecology Solutions in 2020 as itemised below:
- Phase 1 Habitat Survey - January 2020
 - Badger survey - January 2020
 - Building Preliminary Bat Roost Assessment - January 2020
 - Ground assessment of trees (Bats) - January 2020
 - Single bat transect survey - May 2020
 - Bat activity remote recording (five consecutive nights) - May and early June 2019
 - Reptile survey - April to June 2020
 - GCN environmental DNA – April 2020
- 3.1.2 The results of these surveys are considered in evaluation and assessment of potential impacts. Selected follow up surveys were undertaken in the latter half of 2020 to supplement existing survey data; including an EA, preliminary bat roost inspections, dusk and dawn roost surveys and late summer bat activity surveys.

3.2 Desk Study

- 3.2.1 Thames Valley Environmental Records Centre (TVERC) were contacted in January 2020 by Ecological Solutions to obtain ecological records within a 2 km radius of the Application Site. The results of this request have been included within this report.
- 3.2.2 A review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs) was also undertaken.
- 3.2.3 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2016).
- 3.2.4 A 1:25,000 OS map was used to identify nearby features such as ponds or green corridors that could provide habitat or connectivity to other areas.

3.3 Ecological Appraisal

- 3.3.1 The ecological appraisal consisted of two components: a Phase 1 Habitat survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.
- 3.3.2 The Phase 1 Habitat surveys were undertaken in August 2020 (main site) and November 2020 (former Recreation Ground) by Katy Thomas Grad CIEEM, a Consultant Ecologist experienced in undertaking Phase 1 Habitat Surveys.
- 3.3.3 The Phase 1 Habitat surveys followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (CIEEM, 2016). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.
- 3.3.4 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat survey. The site was assessed for its suitability to support protected species, in particular bats, birds, reptiles, great crested newt *Triturus cristatus*, badger *Meles meles*, bats, and other species of conservation importance.

- 3.3.5 The surveyor looked for evidence of use including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted and where possible followed. Fence boundaries were walked to establish any entry points or field signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

3.4 Preliminary Bat Roost Assessment

- 3.4.1 An assessment of the suitability of trees for bat roosting potential was undertaken at the same time as the Phase 1 Habitat Survey during the August 2020 survey. The potential roost suitability was assessed from the ground for potential bat roosting features. The assessments followed the guidelines published by the Bat Conservation Trust (BCT, 2016).
- 3.4.2 During the inspection, the ecologist looked for the following signs to indicate the presence of bats:
- bat droppings;
 - insect wings (feeding stations);
 - oil (from fur) and urine stains;
 - scratch marks;
 - bat corpses; and
 - actual sightings of bats.
- 3.4.3 Follow up checks of trees were completed in November 2020 when the leaves had fallen and the upper parts of the trees were not unobscured.
- 3.4.4 Any potential roost features or potential bat access points and roost places were also searched for and assessed. When suitable features were identified, they were inspected for signs indicating use or possible use by bats including tiny scratches, staining and flies around the entry points, bat droppings and feeding remains in, around and below entrances, distinctive smell of bats and the smoothing of surfaces around cavities.
- 3.4.5 Guidance from BCT (2016) on the features of buildings which correlate with their use by bats were also considered.

3.5 Bat Emergence/Re-entry and Activity Surveys

Presence/absence Roost Survey

- 3.5.1 A bat emergence survey of building B4 was carried out at dusk on the 15 September 2020 and a dawn survey of Building B1 was carried out at dawn on 16 September 2020. The bat activity survey was subsequently carried out on the evening of 16 September 2020.
- 3.5.2 The dusk survey commenced at 15 minutes before sunset and continued for 90 minutes after sunset covering the key emergence period. The dawn survey started 90 minutes before and ended 15 minutes after sunrise.
- 3.5.3 Building B4 which had low bat roost potential while B1 had low to negligible potential. The previous surveys by Ecology Solutions had concluded that none of the buildings in the main site offered any roosting opportunities.

Activity Surveys

- 3.5.4 Ecology Solutions undertook one bat activity survey in May 2020. An additional bat activity survey of the main site was undertaken in September 2020 to gain further information about the extent to which bats utilise the site. The activity survey was led by Alex Powell Grad CIEEM, Ecologist; and Edward Nabbs, Assistant Ecologist, who are both experienced in undertaking bat surveys.

- 3.5.5 The bat activity transects surveyed the whole of the site but focused on those features likely to be of greatest value for bats including mature trees along the boundaries and through the centre of the site. The transect routes covered the hedgerows, treelines and scrub which have potential value as foraging habitat and as flight lines for commuting bats, within an otherwise urban landscape.
- 3.5.6 The transect involved a bat activity survey lasting at least two hours, commencing 15 minutes before sunset. During the surveys, two ecologists walked the transect at a steady speed. Listening station stops, lasting five minutes at most, were incorporated along the route at particular features of interest. On each visit, start points were varied to reduce bias associated with time of day/night.
- 3.5.7 Visual observations for bats were undertaken by scanning the skyline and bat detectors used to listen to and record echolocation calls. Elekon batlogger and Anabat bat detectors were used to detect echolocation calls from bats to assist with species identification and recordings were made. For any bats encountered, notes were made on location, species or species group, behavioural observations (e.g. direction of flight, habitat) and activity heard (e.g. feeding buzzes or social calls).

Remote Recording

- 3.5.8 Stationary automated surveys within the main site were undertaken in May/June and September.
- 3.5.9 Two SM2 bat detectors were left for a period of at least five consecutive nights and moved between four different locations over the survey period to gain additional information about bat activity on site. These surveys support the assessment of the bat assemblage in the area and help in determining how bats utilise the site.
- 3.5.10 Stationary surveys were subsequently undertaken in September and October 2020 focused on the habitat on site that was identified as being most suitable for foraging and commuting bats. This habitat was also included in the transect survey. The surveys aimed to gather data for a minimum of five nights.

Data analysis

- 3.5.11 The data recorded during the bat activity and bat emergence/re-entry surveys was analysed using computer software, which allows the display of sonograms and power spectra of bat calls, that together with the measurement of call parameters such as peak call frequency, pulse length and repetition rate, assist in identifying calls to species or species groups.
- 3.5.12 During the bat activity surveys, bat contacts were recorded as commuting behaviour or foraging behaviour when it was possible to distinguish the type of behaviour being displayed. Where the number of foraging passes could be reasonably confidently attributed to a given species, the foraging data was used to determine foraging levels.

3.6 Impact Appraisal

- 3.6.1 The overall ecological appraisal is based on the standard best practice methodology provided by the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The assessment identifies sites, habitats, species and other ecological features that are of value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Biodiversity Action Plans.
- 3.6.2 The assessment also refers to planning policy guidance (e.g. NPPF) where relevant to relate the value of the site and potential impacts of development to the planning process, identifying constraints and opportunities for ecological enhancement in line with both national and local policy.
- 3.6.3 The methodology for evaluation of the nature conservation value of ecological features affected by development (ecological receptors) is adapted from the current Chartered Institute of Ecology & Environmental Management guidelines for Ecological Impact Assessment (CIEEM, 2016). These guidelines recommend assignment of value (or potential value) to ecological receptors in accordance with the following scale:

1. International;
2. UK;
3. National (i.e. England/Northern Ireland/Scotland/Wales);
4. Regional;
5. County (or Metropolitan - e.g. in London);
6. District (or Unitary Authority, City, or Borough);
7. Local or Parish; and/or
8. within immediate zone of influence only.

3.6.4 Following on from the above, potential constraints to development are identified on that basis, with recommendations for further, more detailed surveys made as appropriate, for example to fully investigate botanical value or to confirm presence / likely absence of a protected species.

3.6.5 In appraising any impacts, the review considers the client's site proposals and any subsequent recommendations made are proportionate and appropriate to the site and have considered the Mitigation Hierarchy as identified below:

- **Avoid:** Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
- **Mitigate:** Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
- **Compensate:** Where avoidance cannot be achieved by any mitigation strategy will consider the requirements for site compensatory measures.
- **Enhance:** The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.

3.6.6 When describing impacts on ecosystem structure and function, reference is made to the following aspects where appropriate:

1. extent;
2. magnitude;
3. duration;
4. reversibility;
5. timing and frequency.

3.6.7 Understanding the nature of the impact enables determination of the effect on the ecological integrity of the ecological receptor. This in turn is assessed against the importance of the receptor to determine the significance of the effect on nature conservation interests as being (i) not significant, or (ii) a significant positive or adverse impact.

3.7 Limitations

Desk Based Assessment

3.7.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

Survey

3.7.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

- 3.7.3 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.
- 3.7.4 The Phase 1 habitat survey for the former Recreation Ground was carried out outside of the optimal survey season (April to October). Although the survey was carried out at a sub-optimal time of year, it is considered that sufficient information was obtained to enable an accurate assessment of the site to be carried out. It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

Accurate Lifespan of Ecological Data

- 3.7.5 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions.

4 BASELINE CONDITIONS

4.1 Designated Sites

- 4.1.1 There are several statutorily designated nature conservation sites located within within 2km of the Application Site, the closest of which is Wykery Copse SSSI located 300m from the site.
- 4.1.2 Three non-statutory nature conservation sites are located within the 2km search radius of the site, the closest being Riggs Copse located approximately 20m from the site boundary. Big Wood is a larger area of ancient woodland located over 800m west of the former Recreation Ground. In addition there are a further 10 small blocks of ancient woodland with 1km with similar number between 1km and 2km.
- 4.1.3 A summary of the designated sites is provided in Table 4.1 below and the location of each site is shown on Figure 1 along with the areas of ancient woodland.

Table 4.1: Designated sites within 2 km of the study area

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
Statutory Sites				
Thames Basin Heaths	SPA	8309.5	Designated for breeding populations of Nightjar <i>Caprimulgus europaeus</i> , Woodlark <i>Lullula arborea</i> and Dartford Warbler <i>Sylvia undata</i>	2.86
Broadmoor to Bagshot Woods and Heaths SSSI				
Wykery Copse	SSSI	3.2	A fragment of ancient broadleaved woodland. Woodland types include wet ash-maple, valley and base-rich springline alder, and oak, with birch and hazel. Good range of breeding birds and invertebrates.	0.24
Farley Copse	LNR			0.41
Temple Copse	LNR			1.1
Jocks Copse	LNR			1.37
Tinkers Copse	LNR			1.43
Non-statutory Sites				
Rigg's Copse	LWS	1.9	Comprises a small parcel of ancient woodland containing stands of oak, hazel coppice, alder with birch and beech with holly.	0.21
Big Wood	LWS	10.7	Ancient Woodland	0.83
Pope's Meadow	LWS	13.7	Parkland and beech woodland	0.41

Abbreviations used in Table 3.1: SAC: Special Area of Conservation; SPA: Special Protection Area; SSSI: Site of Special Scientific Interest; CWS: County Wildlife Site; NS: Not supplied; ha: hectare.

4.2 Species

- 4.2.1 The local biological record centre holds a number of records of species of conservation importance or which are otherwise notable within the 2 km search radius of the site. A summary of these species records is provided in Table 4.2.
- 4.2.2 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6 figure grid reference resolution or higher are provided, since locations

given at a lower resolution do not allow accurate calculation of distance to the Application Site boundary.

Table 4.2: Species records from the last 10 years within 2 km of the site

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Flora				
Bluebell	<i>Hyacinthoides non-scripta</i>	0.2	39	WCA8
Marsh Stitchwort	<i>Stellaria palustris</i>	0.7	1	UKBAP, NERC S.41
Invertebrates				
Stag Beetle	<i>Lucanus cervus</i>	0.2	118	WCA5
Amphibians				
Common Toad	<i>Bufo bufo</i>	0.7	7	WCA5, UKBAP, NERC S.41
Palmate Newt	<i>Lissotriton helveticus</i>	1.2	1	WCA5
Smooth Newt	<i>Lissotriton vulgaris</i>	0.6	58	WCA5
Common Frog	<i>Rana temporaria</i>	0.7	3	WCA5
Great Crested Newt	<i>Triturus cristatus</i>	0.9	47	EPS, WCA5, UKBAP, NERC S.41
Reptiles				
Slow Worm	<i>Anguis fragilis</i>	0.6	15	WCA5, UKBAP, NERC S.41
Grass Snake	<i>Natrix helvetica</i>	1.2	22	WCA5, UKBAP, NERC S.41
Common Lizard	<i>Zootoca vivipara</i>	1.4	3	WCA5, UKBAP, NERC S.41
Birds				
Skylark	<i>Alauda arvensis</i>	0.7		UKBAP, NERC S.41, Red
Kingfisher	<i>Alcedo atthis</i>			WCA1, Amber
Little Egret	<i>Egretta garzetta</i>			BDIR
Peregrine Falcon	<i>Falco peregrinus</i>			WCA1
Linnet	<i>Linaria cannabina</i>			UKBAP, NERC S.41, Red
Red Kite	<i>Milvus milvus</i>			WCA1, BDIR
House Sparrow	<i>Passer domesticus</i>	1		UKBAP, NERC S.41, Red
Dunnock	<i>Prunella modularis</i>			UKBAP, NERC S.41
Bullfinch	<i>Pyrrhula pyrrhula</i>			UKBAP, NERC S.41, Red
Starling	<i>Sturnus vulgaris</i>	1		UKBAP, NERC S.41, Red
Redwing	<i>Turdus iliacus</i>			WCA1, Red
Song Thrush	<i>Turdus philomelos</i>	1		UKBAP, NERC S.41, Red
Barn Owl	<i>Tyto alba</i>			WCA1
Mammals (Bats)				
Serotine	<i>Eptesicus serotinus</i>	1.6	31	EPS, WCA5
Bechstein's Bat	<i>Myotis bechsteinii</i>	1.2	1	EPS, WCA5, UKBAP, NERC S.41
Daubenton's Bat	<i>Myotis daubentonii</i>	0.6	5	EPS, WCA5
Natterer's Bat	<i>Myotis nattereri</i>	0.6	7	EPS, WCA5
Leisler's Bat	<i>Nyctalus leisleri</i>	1.4	4	EPS, WCA5
Noctule Bat	<i>Nyctalus noctula</i>	2.6	85	EPS, WCA5, UKBAP, NERC S.41
Nathusius' Pipistrelle	<i>Pipistrellus nathusii</i>	0.3	13	EPS, WCA5
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	0.02	225	EPS, WCA5
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	0.02	164	EPS, WCA5, UKBAP, NERC S.41

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Brown Long-eared Bat	<i>Plecotus auritus</i>	0.5	56	EPS, WCA5, UKBAP, NERC S.41
Mammals				
West European Hedgehog	<i>Erinaceus europaeus</i>	0.1	52	UKBAP, NERC S.41
European Otter	<i>Lutra lutra</i>	1.7	1	EPS, WCA5, UKBAP, NERC S.41
Eurasian Badger	<i>Meles meles</i>	0.7	44	PBA
Dormouse	<i>Muscardinus avellanarius</i>	1.4	1	EPS, WCA5, UKBAP, NERC S.41

Abbreviations used in Table 3.2: WCA1i: Wildlife & Countryside Act Schedule 1, part 1; WCA2: Wildlife & Countryside Act Schedule 2; WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 8; WCA9: Wildlife & Countryside Act Schedule 9; N: Nationally Notable; Nb: Notable B; NR: Nationally Rare; NS: Nationally Scarce; NERC: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; HabDir2, 4, 5: Habitats Directive Annex 2, 4, 5; PBA: Protection of Badgers Act 1992; RedList_GB_Pre94-R : Red List (pre 1994 IUCN guidelines) Rare; RedList_Global_post2001_LC: Global Red list status: Lower risk - least concern; HabRegs2: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 2); HabRegs4: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 4); Birds:Red: Bird Population Status: red; Birds:Amber: Bird Population Status: amber; CROWACT: Countryside and Rights of Way Act 2000.

4.3 Habitats – Main Site

- 4.3.1 The survey results are presented in the form of a map with the habitat types and boundary features marked the Habitat Plan (Figure 2). Photographs can be found in Appendix B.

Buildings and Hardstanding

- 4.3.2 There are four buildings on the main site: buildings B2 and B3 are the two main office buildings three storeys tall. They both have a metal frame construction and a large number of windows and metal clad exterior walls.
- 4.3.3 Buildings B1 and B4 a single-storey buildings with a hipped composite tiled roof. The exterior of the buildings are also clad in metal sheeting with metal guttering and soffits. B1 appears to be used for storage with a metal shutter door on the south eastern elevation. A small number of metal shipping containers are also present to the west of Building B3.
- 4.3.4 The majority of the main site comprises hardstanding (see Photograph 3) primarily internal roads and car parking for the existing offices. The active use of the Application Site has limited any significant encroachment of opportunistic plant species within the hardstanding, with only a few ruderal species recorded including willowherb *Epilobium sp.*, Canadian fleabane *Conyza canadensis*, bristly ox-tongue *Helminthotheca echinoides* and butterfly bush *Buddleja davidii*.
- 4.3.5 As habitats these features have negligible ecological value. The potential for bats to be roosting in the buildings is considered in Section 4.5.

Introduced Shrubs

- 4.3.6 Areas of amenity planting are found throughout the main site and were presumably planted as part of the landscaping for the existing development. The amenity planting ranges from native and non-native trees and areas of groundcover shrubs. Species recorded include Scots pine *Pinus sylvestris*, alder *Alnus glutinosa*, beech *Fagus sylvatica*, cherry *Prunus sp.*, box-leaved honeysuckle *Lonicera pileate*, mahonia *Mahonia sp.*, cherry laurel *Prunus laurocerasus*, hebe *Hebe sp* and Dogwood *Cornus sanguinea*. Honeysuckle *Lonicera periclymenum*, daffodil *Narcissus sp.*, and lavender *Lavandula angustifolia*, were also noted amongst the shrubs and trees.
- 4.3.7 This man-made habitat has low ecological value even in the context of the Application Site.

Tree Belt

- 4.3.8 A belt of mixed broadleaved and coniferous trees is located along the north western boundary of the Application Site.
- 4.3.9 This habitat has a dense understorey of bramble with scattered shrubs including garden privet, blackthorn, gorse *Ulex europaeus*, hawthorn *Crataegus monogyna*, cherry laurel, elder and dogwood. The tree species are still relatively young and have comprising Scots pine, hazel, beech, pedunculate oak and field maple *Acer campestre*.
- 4.3.10 Amenity shrub planting forms an interface between the trees and hardstanding in this area with laurel and box-leaved honeysuckle most frequently occurring. Scattered broadleaved and coniferous trees are also present along the western boundary of the site, comprising mature field maple and Scots Pine.
- 4.3.11 The tree belt has ecological value in the context of the pre-developed site which is predominantly hardstanding.

Hedgerows / Tree lines

- 4.3.12 Several ornamental hedgerows have been planted within the main site and subdivide areas of the car park (H1, H4, H6, H7, H9, H10 and H11). These hedgerows are all managed beech and box-leaved honeysuckle reaching 1.5-2m in height. Hedgerow H8 is also an ornamental hedge within the carpark but is unmanaged and dominated by non-native species. The composition includes box-leaved honeysuckle, laurel *Prunus* sp., beech, holly *Ilex aquifolium* and cherry.
- 4.3.13 Hedgerow H2 is also an tall wide hedgerow with a mix of native and ornamental species on the southern boundary of the main site. The dominant hedgerow species are laurel and box with occasional blackthorn *Prunus spinosa* and bramble *Rubus fruticosus*. Tree species growing in the boundary include alder *Alnus glutinosa* and eucalyptus *Eucalyptus* sp. The ground beneath the hedge is largely devoid of vegetation.
- 4.3.14 Hedgerow H3 is a tall overgrown hedge comprising native species on the boundary in the southwest of the site, on the boundary of the car park. The composition includes hazel *Corylus avellana*, pedunculate oak *Quercus robur*, ash *Fraxinus excelsior*, alder, and dogwood with the climbers dog rose *Rosa canina*, and bramble.
- 4.3.15 Hedgerow H5 is a narrow tree belt on the western boundary of the main parcel adjoining Beehive Road. The most easterly end is unmanaged with hazel, Scots pine, oak, mahonia, and garden privet *Ligustrum ovalifolium* all present. The northern section is managed to a height of approximately 1.5m along with several oak, silver birch *Betula pendula* and Scots pine trees.
- 4.3.16 Hedgerow H12 is a collection of short holly and beech hedgerows that align the car parking areas and footpaths close to Building B2. These are dense and well-managed and are approximately 1.5 to 2m tall.
- 4.3.17 The ornamental hedgerows have negligible importance for biodiversity. The tall mixed species hedgerows with some native shrubs and trees have ecological value in the context of the Application Site.

Individual Trees

- 4.3.18 Semi-mature silver birch trees are present between Buildings B2 and B3. Individual stand-alone trees are present throughout the areas of hardstanding, comprising rowan and cherry. The amenity trees will be continuing to develop ecological value but this is currently limited by the age. The planted trees currently have low ecological value in the context of the Application Site.

Semi-improved grassland

- 4.3.19 Small areas surrounding the hardstanding consist of semi-improved grassland verges. The grass verges have been subject to varying degrees of management, although very few areas are considered to be of a complex or tall structure.

- 4.3.20 Species recorded within the areas of semi-improved grassland include abundant rough meadow-grass *Poa trivialis*, cock's-foot *Dactylis glomerata*, yarrow *Achillea millefolium*, ragwort *Senecio jacobaea*, lesser trefoil *Trifolium dubium*, dove's-foot cranesbill *Geranium molle*, cut-leaved cranesbill *Geranium dissectum*, frequent red clover *Trifolium pratense*, creeping buttercup *Ranunculus repens*, bristly ox-tongue, daisy *Bellis perennis*, Canadian fleabane, spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, perforated St. John's wort *Hypericum perforatum*, ground ivy *Glechoma hederacea*, common vetch *Vicia sativa* subsp. *segetalis* and creeping cinquefoil *Potentilla reptans*.

4.4 Habitats - Former Recreation Ground

Semi-improved grassland

- 4.4.1 The former Recreation Ground is an area of green space created by the previous occupiers of the main site. This area has not been in use for some time and has largely been left unmanaged leaving the previous amenity areas to become more naturalised.
- 4.4.2 The former sports pitch (previously amenity grassland) has been subject to low levels of management and is now tussocky in nature with a tall sward height and relatively low species diversity.
- 4.4.3 The semi-improved grassland is generally species poor, which is perhaps a representation of the seed mix used for the now disused football pitch. Species recorded include abundant rough meadow-grass, soft brome *Bromus hordeaceus*, false oat-grass *Arrhenatherum elatius*, frequent perennial rye grass *Lolium perenne*, cock's-foot, creeping thistle, yarrow, occasional creeping buttercup, dove's-foot cranesbill, black medick *Medicago lupulina*, herb Robert *Geranium robertianum* and hard rush *Juncus inflexus*. Snowdrop *Galanthus nivalis* also occurs on the edge of the grassland adjacent to the hardstanding. In the absence of grassland management patches of scattered bramble are establishing.
- 4.4.4 This habitat has ecological importance in context of the Application Site.

Broadleaved Plantation Woodland

- 4.4.5 An area of broadleaved woodland makes up the south-eastern portion of the former Recreation Ground where it surrounds the pond. The woodland area was originally planted when the former Recreation Ground was established. Aerial photography from 2005 show that there were scattered willow trees on the edge of the pond and blocks of maturing shrubs/trees. The most established trees and shrubs are present on the boundary with the railway line and pre-date the creation of the former Recreation Ground. Over the last fifteen years the maturing shrubs and trees have formed a closed canopy as a woodland has developed.
- 4.4.6 The majority of the woodland comprises a mix of beech, willow *Salix* sp., hazel, oak, field maple, alder and hawthorn. The understorey of the woodland is sparse although there are clearly areas of planting that align the footpath which weaves throughout the woodland.
- 4.4.7 The planting consists of hawthorn, blackthorn, dogwood and garden privet. The ground flora of the woodland is not particularly rich with frequent ground ivy, garlic mustard *Alliaria petiolata*, ivy *Hedera helix*, herb Robert, common nettle *Urtica dioica*, creeping buttercup, with occasional lords-and-ladies *Arum maculatum*. Pendulous sedge *Carex pendula* is frequent in wooded areas close to the edge of the pond. Non-native ground flora species include daffodil and hellebore *Helleborus* sp.
- 4.4.8 The woodland is of relatively recent origin does not qualify as a Habitat of Principal Importance. This habitat has high ecological value in a context of the Application Site with connectivity to the adjacent ancient woodland.
- 4.4.9 The semi-improved grassland in the southwest corner of the former Recreation Ground has been recently planted with a group of alder buckthorn *Frangula alnus* shrubs. The ground beneath the young planted trees remains short semi-improved grassland with the same composition as the

other areas. The young plantation of alder buckthorn has low value for biodiversity in context of the Application Site.

Pond

- 4.4.10 The man-made pond extends to 0.2ha and is surrounded by the broadleaved woodland. The pond has shallow banks vegetated by tall ruderal species and willow. The water of the lake was turbid at the time of the survey; fringed by localised stands of marginal vegetation including yellow flag *Iris pseudacorus*. Other planted species include bogbean *Menyanthes trifoliata* and a large clump of water lily *Nymphaea* sp. was present on the surface. Aquatic vegetation (probably waterweed *Elodea* sp.) was visible below the water.
- 4.4.11 Several large fish were observed within the pond during subsequent survey work. The man-made waterbody has ecological value in context of the site.

4.5 Protected and Priority Fauna and Plants

Bats - Roosts

- 4.5.1 The buildings on the Application Site were assessed from the ground for their bat roost potential as described in Table 4.3. The buildings within the main site have very low value features limiting their potential to be used by roosting bats, even on an occasional basis.
- 4.5.2 The context of the buildings, within an expanse of hardstanding, is also poor and separate from good foraging habitat and wider wildlife corridors.

Table 4:3 Preliminary Bat Roost Assessment – Buildings

Structure	Description	Suitability
B1	<p>A single storey building with a hipped composite tiled roof and metal guttering and soffits. The exterior of the building is also clad in metal sheeting. The building is presumably used for the storage of vehicles given the metal shutter door on the south eastern elevation.</p> <p>Overall, the building is in a good condition, however one of the ridge tiles appeared to be slightly raised.</p>	Low/Negligible
B2	One of the two main office buildings with three storeys. Metal frame construction with a large number of windows and metal clad exterior walls. Both buildings possess a shallow pitched roof and metal soffits and fascia. Internally they are used for office space and are connected via a multi-storey glass walkway.	Negligible
B3	One of the two main office buildings with three storeys. Construction as described for B2	Negligible
B4	The building is of a single storey height with a hipped composite tiled roof. The exterior walls of the building are clad in metal sheeting with large vents present on the north western and south eastern elevations; the overall condition of the building is good with no obvious signs of damage or wear.	Low
B5	An old pavilion on the former Recreation Ground which remains in a good state of repair. The building is of a single height with a hipped clay tile roof and wooden soffit and fascia boarding with no visible gaps or entry points that could be used by bats. A roof skylight is present suggesting an absence of interior loft space. Loose roof tiles and soffit.	Moderate

- 4.5.3 All the trees within the main site were too young to have developed roost features. There is only one tree on the former Recreation Ground with any bat roost potential; it is located on the southern boundary of the broadleaved woodland adjoining the railway embankment.

- 4.5.4 The Application Site does not currently have importance for roosting bats and the potential roost features within the site are not of high value.
- 4.5.5 Mature trees in Riggs Copse adjoining the former Recreation Ground would be expected to have a much higher likelihood of use by bats. In the long term as the trees in the former Recreation Ground mature, the proximity to waterbody will increase likelihood of use of any good PRFs that develop.

Bat Emergence/Re-entry

- 4.5.6 No bats emerged or re-entered the buildings during the emergence or re-entry surveys.
- 4.5.7 There were low levels of activity from 20 minutes after sunset with two passes of noctule and single passes of common pipistrelle and soprano pipistrelles. In each case the bat calls were heard from behind the surveyors away from the buildings with no activity in the vicinity of buildings bat.

Bat Activity

- 4.5.8 The findings of the transects and remote recording in both spring and early autumn 2020 have confirmed that the main site is associated with low levels of bat activity with registrations primarily associated with the western boundary hedgerow and tree belt.
- 4.5.9 Across the spring and autumn surveys remote recording detected four species; common pipistrelle, soprano pipistrelle, noctule and a Myotis bat.
- 4.5.10 At the end of May and in early June there were on average 37 registrations/night and 27 registrations /night on the two detectors with the vast majority of the passes being common or soprano pipistrelle between (85% and 98%). The levels of activity were much lower during the remote recording in September with 11 registrations on one detector and only one on a second over five night recording periods. Across the two periods of recording the earliest registration was of a soprano pipistrelle at 23 minutes after sunset at H8 on the south-eastern boundary close to roundabout and main road.
- 4.5.11 The surveys of the former Recreation Ground in May and June recorded higher levels of activity compared to the main site, but overall the use of this area was relatively low. Six species were recorded on the automated detectors including serotine, brown long eared and a Myotis bat. The majority of activity was associated with the waterbody and broadleaved woodland with common pipistrelle (63% of calls) and soprano pipistrelle (28% of the calls) the main species using the site.
- 4.5.12 The earliest detections were soprano pipistrelle at 14 minutes after sunset, common pipistrelle at 17 minutes after sunset and noctule 14 minutes after sunset strongly indicating the presence of roosts in the local area.
- 4.5.13 The findings are consistent with the species records held by the biological record centre with good populations of common and soprano pipistrelle in the local area along with noctule and brown long eared bat.
- 4.5.14 Overall, the main site has negligible importance for local populations of bat species.
- 4.5.15 The former Recreation Ground has site importance for the two pipistrelle species and noctule. The automated detectors indicate that it lies on an east-west flightline on the northern side of the railway linked to the block of ancient woodland.

Badgers

- 4.5.16 The spring and autumn surveys confirmed the absence of setts and found no evidence of territory boundaries or foraging indicating that neither the main site or former Recreation Ground are currently regularly used by a badger social group.
- 4.5.17 Badgers are resident in the local area with over seven records within 1km of the Application Site boundary.

- 4.5.18 However, the sighting of a badger moving along the southern boundary hedgerow during the May night time bat survey indicates that badgers are active in the local area and that the boundary of the site is used for dispersal.
- 4.5.19 The main site has very low potential value with foraging opportunities limited to the fringes. The heavily shaded ground beneath the areas of ornamental shrub planting would not be expected to have large populations of earthworms and other food resources such as berries will not be abundant.
- 4.5.20 The former Recreation Ground has higher suitability for foraging and lies on the wildlife corridor connected to ancient woodland.
- 4.5.21 The boundaries of the main site and former Recreation Ground have up to site level importance for badger. The hardstanding areas subject to the development proposal have negligible value.

Dormouse

- 4.5.22 The trees and shrubs (mainly ornamental) on the boundaries of main site have negligible suitability for use by dormice. The broadleaved woodland in the former Recreational Ground has areas with abundant hazel in the understorey which provide a potential food source for this species in autumn.
- 4.5.23 Ecology Solutions carried out a nut search in January 2020 and noted small numbers of old nest tubes suggesting the former Recreation Ground has been surveyed for dormice in the past. The closest record is in woodland 1.4km from the Application Site with poor connectivity between the two.
- 4.5.24 It is considered to be absent from the former Recreation Ground and the main site has negligible potential value for dormouse.

Hedgehog

- 4.5.25 There are many records of hedgehog *Erinaceus europaeus* within the surrounding area with the closest record being 100m from the Application Site boundary.
- 4.5.26 The main site has low suitability for this species given the expanse of hardstanding but the ornamental shrubs create cover which could be used as a foraging area or as corridor along which animals can disperse.
- 4.5.27 In the former Recreation Ground, the areas of grassland and woodland offer good foraging opportunities. Three small artificial 'mammal homes' have been constructed in the woodland in their past but none has any signs of use.
- 4.5.28 The former Recreation Ground and boundaries of the main site have value for hedgerow in the context of the site and immediate surroundings.

Birds

- 4.5.29 The main site has limited value for local bird populations with no evidence of nesting in buildings. Some of the ornamental shrubs and managed ornamental hedgerows have dense structures in which nests could be built in cover away from predators.
- 4.5.30 Given the context of the Application Site and nature of the habitats, the main site would only be expected to support pairs of species that are common and widespread in urban areas.
- 4.5.31 The habitats have the potential to support house sparrow *Passer domesticus* and dunnock; both of which occur throughout urban areas but are species of conservation concern due to long term historic declines, but neither species were seen.
- 4.5.32 The former Recreation Ground has higher value for nesting and foraging with the maturing broadleaved woodland and waterbody with moorhen *Gallinula chloropus* and Canada goose *Branta canadensis* observed during surveys in 2020.

- 4.5.33 The main site has low value for breeding birds while the former Recreation Ground has value in the context of the site and immediate surroundings. Neither of the areas will be of importance for local populations of any bird species.

Amphibians

- 4.5.34 The waterbody in the former Recreation Ground has been classified as having very low suitability for great crested newts (GCN) with fish observed and waterfowl present; both factors that reduce the likelihood of use by GCN. The environmental DNA testing in 2020 found GCN DNA to be absent from water samples indicating absence of this species. The closest known record for GCN is approximately 1.2km northwest, beyond the M4 motorway. Ponds in the surrounding area are separated from the Application Site by significant dispersal barriers.
- 4.5.35 More widespread amphibian species such as common frog, common toad, smooth newt and palmate newt have all been recorded in the surrounding area and one or more of these species could breed in the former Recreation Ground. The woodland and grassland have value as terrestrial habitats for amphibians providing cover and being a source of invertebrate prey.
- 4.5.36 The former Recreation Ground is predicted to have value for amphibians in the context of the site and the immediate surroundings.

Reptiles

- 4.5.37 The main site has very low value for reptiles with cover limited to the overgrown hedgerows and tree belt on the western and south-western boundary.
- 4.5.38 The former Recreation Ground comprises habitats of potential value for reptiles with their requirements similar to amphibians requiring places of shelter and prey which are both available in the woodland and grassland. The reptile survey in 2020 confirmed the presence of small breeding populations of both slow-worm and grass snake within the former Recreation Ground with juveniles of both species recorded. The peak counts of adults were three for slow worm and one for grass snake indicating that small numbers are using the site. If any amphibian species breed in the pond they would be key prey species for grass snake.
- 4.5.39 The confirmation of small populations of two species means that the former Recreation Ground and boundaries of the main site are considered to have local importance for reptiles, while the hardstanding and ornamental hedgerows have negligible value for reptile species.

Invertebrates

- 4.5.40 The main site has very low value for invertebrates with much of the boundary vegetation comprising non-native species although species producing flowers would have some value for pollinating insects. The trees are currently too young to have developed deadwood habitat but the range of native tree species are likely to support a range of common invertebrate species.
- 4.5.41 The former Recreation Ground has a higher potential value with the waterbody, woodland and grassland providing niches and opportunities for invertebrates that are not present in the main site.
- 4.5.42 There are known populations of stag beetle *Lucanus cervus* in the local area with 118 records within 2km of the Application Site, the closest of which is 200m to the north-west. This species is legally protected and a high conservation priority. No large old trees or areas of standing or fallen deadwood are present in the relatively young woodland within the former Recreation Ground and currently the potential for stag beetle to occur is considered to be negligible.
- 4.5.43 Due to the relatively young age of the trees and low diversity of the grassland the species assemblage would be currently expected to only have importance in the context of the site and immediate surrounds.
- 4.5.44 The importance of the main site would be lower and the low value would be limited to the mix of native and introduced shrubs on the boundaries.

Plants

- 4.5.45 No protected or notable species were recorded during the Phase 1 Habitat Survey and the habitats present on the Application site comprised a low diversity of common and widespread flora. The majority of the site had been cleared for development and had no ecological value.
- 4.5.46 No non-native invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded on the Application Site.

5 MITIGATION

5.1 Construction

Designated Sites

- 5.1.1 Best practice measures will be implemented during construction through the Code of Construction Practice (ref 20305B-RPS-XX-XX-RP-P-9738) to prevent pollution events from occurring and to ensure any contaminated soil, water and airborne particles are contained within the project boundary and disposed of appropriately. This would prevent the risk of them reaching the nearby designated sites.

Habitats

- 5.1.2 Prior to the start of ecologically sensitive works, an Ecological Clerk of Works (ECoW) will deliver a toolbox talk to the site construction team, briefing them on all ecology and nature conservation requirements on site.
- 5.1.3 No storage of construction materials, equipment or vehicles will be permitted on the former Recreation Ground and construction lighting will be directed away from the area.
- 5.1.4 To ensure that construction works on the Application Site do not damage the habitats being retained, good practice measures will be implemented through a Code of Construction Practice (CoCP). These measures will include:
- Installing protective fencing around the existing tree belt and other retained trees on the main site and the habitats on the former Recreation Ground along the boundary of the woodland during construction to protect any trees, where they fall outside of construction areas. Best practice guidelines for constructing exclusion zones, barriers and ground protection around trees provided in British Standard 5837:2005 Trees in Relation to Construction will be followed and where necessary adapted for hedgerows.
 - The sensitive siting of construction compounds, access roads, laydown areas and associated lighting away from the area of woodland.
 - Dust management measures to ensure that air pollution generated during construction does not impact on the woodland (see the CoCP document reference 20305B-RPS-XX-XX-RP-P-9738).

Protected Species

Breeding Birds

- 5.1.5 As construction involving tree clearance on the main site is likely to commence in early Q3 (July to September) 2021, it is likely to be outside the optimal bird nesting season (mid-March to mid-June). The nesting season continues to potentially the end of August so if tree clearance operations have to take place during this period, the areas will be inspected prior to the clearance works by a suitably qualified ecologist to check for the presence of nesting birds.
- 5.1.6 If an active nest is found to present, the nest and vegetation within the surrounding five metres will be retained until the young birds have fledged. If the nest is proved to be of a species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) advice will be sought from the inspecting ecologist regarding suitable distances to avoid disturbance to the nest and any bird using it. Such buffers will remain in place until the young birds have fledged and left the nest.

Badger

- 5.1.7 Although badgers are unlikely to regularly move across the site, best practice measures will be implemented during the construction period to ensure that all excavations are either covered at

night or have a ramp or boarding is placed into the excavation to ensure that if any animals become trapped they will have an easy means of escape.

5.2 Operation

- 5.2.1 Landscape schemes for the main site and former Recreation Ground have biodiversity enhancement built into the development proposal. Large areas of the existing hardstanding car park will become green infrastructure in the completed development. A significant part of the main site will become green infrastructure located outside the perimeter fenced to be installed around the main data centre buildings and associated infrastructure.
- 5.2.2 The green infrastructure will comprise tree belts/woodland around the boundaries along with extensive areas of wildflower grassland and amenity tree planting. Ornamental shrubs will be replaced with native tree and shrub species to enhance the biodiversity value of the existing tree belt. Amenity trees will be planted in wildflower grassland to create a parkland character around the building in the longer term.
- 5.2.3 There is no development within the former Recreation Ground where all the habitats will be retained and subject to targeted enhancements including:
- Sowing of mix of woodland wildflowers and grasses into patches of sparsely vegetated ground below the canopies of trees and shrubs.
 - Rotovation and wildflower enrichment of the species-poor grassland in the former sports field to establish a meadow species composition
 - Enhancement of the plantation with the interplanting of additional native broadleaved trees and shrubs to enable a more diverse woodland habitat to develop in the future
 - Creation of a new hedgerow alongside an existing footpath within the woodland.
- 5.2.4 The development proposal includes the installation of a minimum of four long lasting woodcrete bat boxes on trees in the western boundary tree belt of the main site and a minimum of four bat boxes on the boundaries of the former Recreation Ground.
- 5.2.5 A minimum of eight woodcrete bird boxes will be installed on larger trees within the main site and former Recreation Ground.
- 5.2.6 Further enhancements for wildlife in the former Recreation Ground have been incorporated into the development proposal including the provision of two purpose-built hedgehog homes, two reptile hibernacula in habitats that currently support small populations of slow worm and grass snake and log piles.
- 5.2.7 The lighting scheme has been designed to ensure that the south western, western and north-eastern boundaries will remain as dark corridors and there will be no artificial lighting in the former Recreation Ground.

6 ASSESSMENT OF EFFECTS

Designated sites

- 6.1.1 The nearest statutory site is Wykery Copse SSSI approximately 240m from the site boundary but it lies within the zone of potential impacts for this SSSI. Given the existing use of the Application Site and its context along with the distance and separation of the site from the SSSI it is concluded that there is negligible potential for any adverse impacts to occur as a result of the proposed development.
- 6.1.2 The Thames Basin Heaths Special Protection Area (SPA) lies approximately 2.83km south of the Application Site. Due to the distance and separation there would be no potential for direct or indirect impacts associated with construction or the operation of the site. The qualifying features of this SPA have the potential to be adversely affected by recreational pressure.
- 6.1.3 The proposed development will result in the redevelopment of an existing business park. Following construction the number of people working at the site will be significantly lower than the previous use. The operation of the data centre will not result in any increase in recreational usage of sites within the Thames Basin Heaths SPA.
- 6.1.4 There is a single non-statutory site located within the zone of influence of the development: Rigg's Copse LWS is located close to the former Recreation Ground that will be subject to enhancements through seeding and planting.
- 6.1.5 These enhancement works will be over 20m from the boundary of the designated site and are sufficiently distant from the woodland for there to be potential for any adverse effects. The development would be consistent with relevant legislation and planning policy relating to designated sites.

Habitats

- 6.1.6 The following habitats will be lost or impacted by the proposed development on the main site:
 - Buildings and hardstanding
 - Ornamental shrubs (amenity planting)
 - Ornamental hedgerows
 - Amenity trees (young semi-mature)
 - Strips of amenity grassland (equivalent to poor semi-improved).
- 6.1.7 Each of the habitats are of low value ecological features and will be subject to complete loss due to development of the new buildings and infrastructure or as part of the biodiversity enhancement of the site with conversion to wildflower grassland and/or blocks of native shrubs.
- 6.1.8 The existing native trees and shrubs in the tree belt and tree lines on the boundaries of the main site will be retained and protected during construction and will incorporate maturing features into the green infrastructure of the completed.
- 6.1.9 Areas currently planted with non-native shrubs will be subject to enhancement through removal and replacement with the planting of a range of shrubs native to the local area. The shrubs will become a significant component of the wider tree belts and over time establishing dense cover of significantly higher value to wildlife than the ornamental species.
- 6.1.10 Native amenity trees and Scots pine will be planted into wildflower meadow areas. In the medium to long term time the part of the wildflower meadow will be subject to varying levels of shade which will influence the botanical species composition of the grassland and potentially creating the opportunity for greater variation in conditions benefiting a wider range of species.
- 6.1.11 The new grassland habitats will develop ecological importance in the context of the site and potentially the wider local area with no residual adverse effect.

- 6.1.12 The higher value habitats in the former Recreation Ground will be subject to enhancement as part of the development proposal.
- 6.1.13 Using the Biodiversity Metric 2.0 the existing habitats in the main site and former Recreation Ground have a baseline value of 20.81 habitat units. The majority of the value is outside the areas subject to development with the main site contributing under 5 habitat units.
- 6.1.14 The post development value for the main site and former Recreation Ground is 37 habitat units, an increase of 16 above the existing value and equating to a 78% biodiversity net gain. A summary of the BNG is provided in Appendix C.
- 6.1.15 The landscaping and enhancements associated with the proposed development will have a positive beneficial effect at least in the context of the site. The enhancement and subsequent management of the former Recreation Ground targeted at biodiversity objectives creates the potential for it to become a site of local importance.

Species

Bat Roosts

- 6.1.16 No bat roosts will be affected by construction activities. The buildings in the main site have low potential value. The inspections of buildings found no signs of droppings below any of the few roost features and there was not bat activity around the buildings during dusk/dawn surveys. The development of the main site will result in the loss of a small number of low value features with no impacts on any bats roosts.
- 6.1.17 The pavilion in the former Recreation Ground will be retained and remain available for use by roosting bats in the developed site.
- 6.1.18 The trees within the main site and former Recreation Ground have not yet matured sufficiently to provide roosting opportunities. The development proposal includes the installation of both Schwegler 1FF and 1FD boxes on the larger trees in tree belt on western boundary of the main site and on larger trees in woodland and boundary tree belt in the former Recreation Ground. A total of 10 bat boxes will be installed in locations away from light spill.
- 6.1.19 The proposed development will not have any adverse effect on roosting bats and the incorporated mitigation will be beneficial at least in the context of the site.

Bat Activity

- 6.1.20 The proposed development will have a negligible effect on existing flight lines and foraging areas and the potential value of the main site for bat activity would remain unchanged during construction.
- 6.1.21 On the main site bat activity is associated with the retained perimeter habitats. The development proposal will substantially reduce the extent of hardstanding and consequently, the value of the developed site for bats will be significantly higher. The replacement of amenity shrubs with new native planting will reduce the level of shelter in the short to medium term. However, areas of new shrub planting will be amongst maturing native trees and shrubs and therefore, the features associated with invertebrate prey will be retained, minimising any effect of reduced shelter during windy conditions.
- 6.1.22 Although the data centre and perimeter fencing require high levels of lighting, the specifications and siting of the lighting columns creates a very sharp drop off in lux levels. Based on the modelled lux contour plan the south western, western and north-eastern boundaries will remain as dark corridors.
- 6.1.23 There will be no artificial lighting in the former Recreation Ground and its value for foraging bats will continue to increase over time as the woodland continues to mature with the beneficial effects of targeted enhancement which should increase invertebrate abundance and prey availability for bats.

- 6.1.24 Following the establishment of wildflower grassland prey availability will increase and over time the levels of bat activity in the developed site would be expected to increase. Overall, the effect of the proposed development on bat foraging activity is predicted to be beneficial in the context of the site.

Badger

- 6.1.25 The proposed development will not adversely effect any habitats or features of importance for badgers. No setts will be impacted and there will be no loss of any potential active foraging areas.
- 6.1.26 The former Recreation Ground, the southern boundary of the main site (line of trees and hedgerow, partly off-site) are recognised as a corridor along which badgers will move through the landscape being connected to ancient woodland to the south west and urban green space to the north east.
- 6.1.27 In the completed development the boundary vegetation will be offset from the perimeter fence by a 5m wide strip of short mown wildflower turf and a 5m wide strip of wildflower grassland maintaining connectivity for badgers.
- 6.1.28 The tree belt boundaries and grassland will have a higher value for badger than the existing site and there is potential for individuals to use the main site more frequently. Despite the lack of signs of badger in the former Recreation Ground, confirmation that the area is located on a wildlife corridor indicates that there will be at least occasional foraging activity. Enhancement and management of the grassland are expected to increase the likelihood of use by badger.
- 6.1.29 The effect of the proposed development on badger is predicted to be beneficial in the context of the site.

Hedgehog

- 6.1.30 The potential for hedgehog to be adversely affected by the proposed development is considered to be limited to the removal of amenity shrub planting and landscaping works as part of the enhancement of the tree belts.
- 6.1.31 Dense shrubs provide potential shelter but at ground level there will be limited cover on heavily shaded bare ground. No features in which hedgehogs could hibernate were noted on the main site during the survey.
- 6.1.32 The potential for impacts on hedgehog will be limited to disturbance of individuals during landscaping works to remove amenity planting, replacement with native shrubs and sowing of wildflower grassland. These works will result in a temporary loss of cover.
- 6.1.33 Following the establishment of new wildflower grassland (within two years of its creation) there will be increased food availability for this species. In the longer term native shrubs will establish dense cover of equivalent value to hedgehog.
- 6.1.34 The former Recreation Ground will remain an area of high potential value for hedgehog. Enhancements will create new areas of cover and shelter; bringing the grassland into active low intensity management will make the habitat easier to traverse and make prey easier to find. Two purpose-built hedgehog homes will be constructed to increase the likelihood of frequent use of the Application Site.
- 6.1.35 Overall the development will have a negligible effect on hedgehog during construction and the long term effect will be at least neutral and potentially beneficial in the context of the site.

Breeding Birds

- 6.1.36 The proposed development will result in the removal of ornamental shrubs and managed ornamental hedgerows with the potential to support pairs of nesting birds. Removal of shrubs during the breeding, in the absence of species protection precautions, could result in the loss of active nests.
- 6.1.37 During construction and in the short term post-construction, the removal of the ornamental shrubs will result in a reduction in nesting opportunities. Given the nature of the habitat, context of the site

and the bird species observed during walkover surveys, these habitats are expected to support a small number of pairs of common species that are widespread in urban areas.

- 6.1.38 The temporary loss of nesting habitat is to facilitate replacement with native shrubs and future biodiversity gains.
- 6.1.39 New planting undertaken as part of the proposed development will include native species and / or fruit bearing species, which will offer new nesting and foraging opportunities for birds. The retention and enhancement of habitats at the former Recreation Ground will ensure that continued opportunities are present in this area post-development.
- 6.1.40 There will be no impact on the use of the former Recreation Ground by nesting birds. Over time the maturing trees will start to develop deadwood features which will provide habitat for invertebrates and increase food availability for breeding birds. In the long term the development of cavity features will increase nesting opportunities.
- 6.1.41 As part of the proposed development additional nesting opportunities will be provided through the installation of a variety of bird nest boxes, including Schwegler 1B bird boxes with different sized entrance holes. These would be installed on the larger trees on the boundary of the main site on the larger trees on the western boundary and within the woodland.
- 6.1.42 During construction the effect on breeding birds would be negligible adverse in the short term. During operation, the maturing of the tree belt and former Recreation Ground woodland will have beneficial outcomes for breeding birds.

Amphibians and Reptiles

- 6.1.43 The likelihood of any amphibian or reptile species being impacted by the proposed development of the main site is negligible with disturbance of the tree belt limited to removal of ornamental shrubs, the planting of native trees and shrubs and the preparation of the ground for the creation of wildflower grassland as part of the landscape scheme.
- 6.1.44 There is no impact on GCN with the negative eDNA results for the only waterbody within the Application Site. Any temporary effect on other amphibian species during the enhancement of the former Recreation Ground will be of negligible significance. Longer term effects will be neutral or beneficial in the context of the site with the introduction of log piles and as the woodland habitat matures and develops greater ground cover.
- 6.1.45 The confirmed small populations of reptiles on the former Recreation Ground are associated with the grassland and or adjoining woodland edge, with the majority seen close to the western boundary furthest from the proposed construction activities. The wooded habitats closer to the main site have lower value lacking areas of good foraging habitat and basking places.
- 6.1.46 Adult grass snake can be far ranging in summer months but the existing habitats in the main site lack dense ground cover and will support a limited amount of prey. Consequently the presence of any reptiles in areas subject to construction or landscaping is very low and there is no predicted adverse effect.
- 6.1.47 Two reptile hibernacula (each a minimum 6m²) will be constructed in the locations close to the woodland edge and potential basking areas in the grassland.
- 6.1.48 Best practice species protection measures will be adopted for the landscaping proposals in the former Recreation Ground, with specific focus on the enhancement and wildflower seeding of the grassland. Mitigation and habitat management measures to protect the reptile population within the former Recreation Ground are detailed within the Landscape Management Plan (document reference 20305B-RPS-00-XX-XX-RP-P-9723). It is recommended that new native species planting is limited within the area of semi-improved grassland to retain the open habitat required by basking reptiles.
- 6.1.49 Overall, the proposed development will have a beneficial outcome on reptiles in the context of the site.

Invertebrates

- 6.1.50 The construction activities on the main site will result in the loss of habitats of very low value for invertebrates. There is no deadwood habitat on the main site and therefore, there would be no potential for impacts on stag beetle.
- 6.1.51 The higher value habitats on the former Recreation Ground will remain unaffected by the proposed development and their value for invertebrates will increase post development as a result of targeted habitat enhancement.
- 6.1.52 All of the trees on the former Recreation Ground will be retained and protected and will be a wildlife resource that will continue to mature and increase in value for biodiversity.
- 6.1.53 The planting of trees and shrubs to broaden the range of native species and the creation of new wildflower grassland will significantly increase the opportunities for invertebrates on the developed site.
- 6.1.54 Essential lighting around the buildings and perimeter fence site will be expected to attract invertebrates from the tree belt and new wildflower grassland. Invertebrates attracted to lights are associated with high levels of predation and mortality and the size of populations of some species will be reduced by this effect.
- 6.1.55 The new wildflower grassland and mown wildflower turf (amenity grassland) will provide a resource that is not currently present on the Application Site which will be utilised by a much larger number of invertebrates than the existing hardstanding and ornamental hedges.
- 6.1.56 Following the establishment of habitats the effect will be beneficial at least at the level of the site and the value for invertebrates will increase over time as the woodland matures and wildflower component of the grassland becomes fully established.

7 CONCLUSION

7.1 Designations

- 7.1.1 There are no statutory designated sites within or in the immediate vicinity of the application site or recreation parcel. The closest site (Wykery Copse SSSI) is located approximately 240m to the south of the Application Site. Although the site falls within the potential impact risk zone of this SSSI there is no connectivity to the development and negligible potential for adverse impacts.
- 7.1.2 Thames Basin Heaths Special Protection Area (SPA) lies approximately 2.8km south. The construction and operation of the proposed data centre development will not result in any increase in recreational activities at the intentionally designated site.
- 7.1.3 It is concluded that the proposed development will not result in any potential adverse effects on statutory designated sites either during construction or once the data centre is operational.
- 7.1.4 The closest non-statutory designated site is Rigg's Copse LWS a block of ancient woodland located approximately 20m to the west of the former Recreation Ground and over 200m from the the main site. The former Recreation Ground creating a strong habitat buffer between the designated site and the proposed development with negligible potential for any adverse effects.

7.2 Habitats

- 7.2.1 The planted amenity shrubs, ornamental hedgerows and the amenity trees within the car park have low to negligible ecological value and their loss at the outset of construction is not of ecological significance.
- 7.2.2 The highest value feature within the main site is the tree belt on the western boundary of the site. The proposed development will retain and protect this feature and include enhancement with the replacement of non-native ornamental planting with native species which over time will establish a linear urban woodland.
- 7.2.3 The loss of small strips of unmanaged former amenity grassland which sub-divide the car park is also of negligible significance. Large areas of the existing hardstanding will become wildflower turf subject to frequent mowing around the building with new new wildflower grassland between the perimeter fence and boundary tree belts.
- 7.2.4 The proposals build on the existing value and through landscaping will deliver beneficial outcomes for wildlife and a biodiversity net gain.
- 7.2.5 The habitats in the former Recreation Ground lie outside of the areas that could be directly affected by development activities. All the habitats are subject to protection and retention. Targeted enhancement of woodland and grassland will increase their species diversity and provide additional features to increase resident populations of of fauna.
- 7.2.6 Together the main site and former Recreation Ground will deliver a 78% net gain in biodiversity habitat units. The planting of a nw native hedgerow will offset the loss of primarily ornamental hedgerows within the main site equating to a net gain of 78%.
- 7.2.7 The habitats will be subject to management for biodiversity through the implementation of the Landscape Management Plan (document reference 20305B-RPS-00-XX-XX-RP-P-9723) and the outcomes of management will be subject to periodic review against condition and targets.

7.3 Species

Bats

- 7.3.1 There will be no loss of bat roosts or impacts on roosting bats. The activity transect surveys have found low levels of bat activity in the main site with slightly higher levels of activity associated with the former Recreation Ground. The proposed landscaping will create higher value boundary

vegetation, and increase the abundance of invertebrates with new native tree and shrub planting, alongside established trees and wildflower grassland.

- 7.3.2 The enhancement and appropriate management of the former Recreation Ground will also promote an increase in activity by bats using the site as a foraging resource.
- 7.3.3 Although the data centre has to be subject to high levels of lighting, the specification of the lighting design creates a sharp cut off in lux levels outside the perimeter fence ensuring the additional lux levels around the majority of the boundary tree belt are less of 1 lux. This sensitive design will retain the value of the boundaries as wildlife corridors and potential flight lines for bats.
- 7.3.4 The former Recreation Ground will remain an unlit east west corridor connected to Riggs Copse and will continue to function as a bat flight line. The installation of new long lasting bat boxes in the tree belt around the main site and on larger trees on the boundary of the former Recreation Ground will significantly increase roosting opportunities on the site.
- 7.3.5 The proposed development will have a beneficial effect on bats at least in the context of the site.

Badger

- 7.3.6 Appropriate mitigation will be undertaken during the construction phase of the development to ensure that risk of entrapment of this species is safeguarded against. The boundaries and the former Recreation Ground will remain as corridors along which badgers can safely move through the landscape. There are no anticipated adverse effects on this species.

Hedgehog

- 7.3.7 The amenity planting, elements of scrub and hedgerows within the main parcel, and the semi-improved grassland, scrub and woodland on the former recreation ground offer opportunities for hedgehog and other species of small mammal. The provision of native shrub planting will ensure that opportunities for this species remain on the main site once developed; with the former Recreation Ground remaining an area of high value for this species enhanced through the introduction of two new hedgehog homes.

Breeding Birds

- 7.3.8 The temporary loss of amenity planting as part of the biodiversity enhancement of the perimeter of the main site will result in a small loss of available nesting habitat resulting in an effect that would have negligible significance in relation to the local populations.
- 7.3.9 The long term benefits of the new native planting on the main site including fruit bearing species will offer new nesting and foraging opportunities. The maturation of the shrubs and woodland in the former Recreation Ground continue to develop value for nesting and foraging birds alongside the nesting opportunities around the pond. Post development the installation bird nest boxes will directly increase the nesting opportunities for cavity nesting species in the short and medium term.

Amphibians and Reptiles

- 7.3.10 GCN were confirmed to be absent from the Former Recreation Ground pond through eDNA testing and the development will not impact on the known reptile populations (or potential common amphibian populations) present in the Recreation Ground.
- 7.3.11 The habitats around the perimeter of the main site which will be subject to landscaping works have low value for reptiles and no adverse effects are anticipated from the felling of ornamental species and replanting with natives.
- 7.3.12 The enhancement and management of habitats on the former Recreation Ground along with the provision of hibernacula and log piles would increase the numbers of reptiles that the Application Site can support. Consequently the long term effect of the proposed development on reptiles and amphibians will be beneficial at least in the context of the site.

Invertebrates

- 7.3.13 The existing habitats on the main site have very low value for invertebrates and the construction of the site will have a negligible effect on invertebrate populations as a result of habitat loss. The former Recreation Ground has higher value and will support a wider assemblage of species.
- 7.3.14 With minimal deadwood habitat in the former Recreation Ground woodland it currently has negligible value for stag beetle. The replacement of ornamental shrubs with native species on the main site and targeted enhancements on the former Recreation Ground will increase opportunities for invertebrates and result in higher diversity and abundance with multiple knock on benefits for biodiversity through increased prey availability and larger populations of pollinating insects.
- 7.3.15 The recommendations and mitigation set out within this report will safeguard the features of ecological value and will result in beneficial effects following the establishment of new and enhanced habitats.

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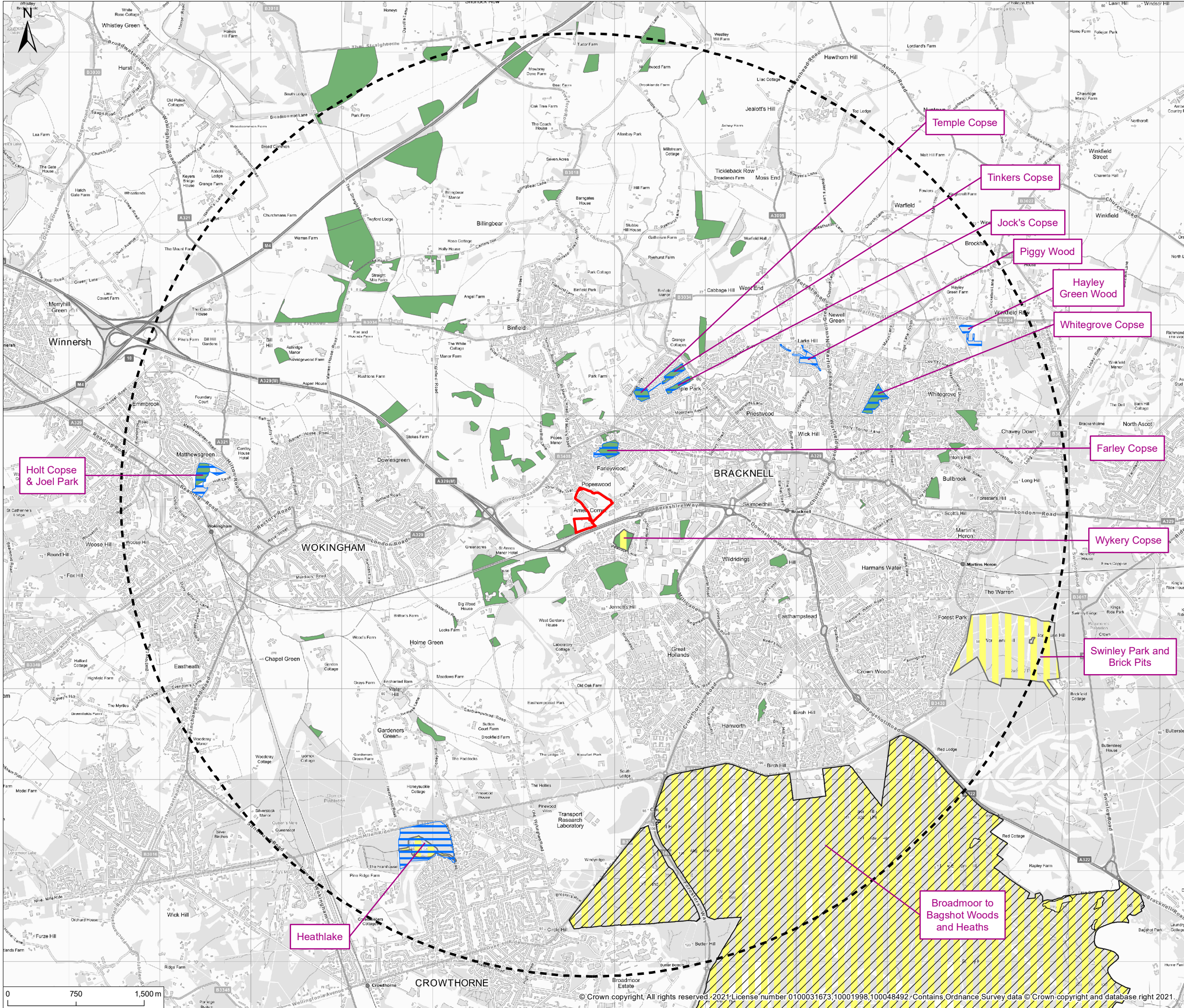
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FIGURES

Figure 1

Statutory Sites with 5km



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- Legend**
- Application boundary
 - Special Protection Area
 - Local Nature Reserve
 - Site of Special Scientific interest
 - Ancient Woodland

Rev	Description	By	CB	Date

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Client -

Project Bracknell Data Centre

Title Statutory Sites within 5km

Status DRAFT Drawn By BG PM/Checked By TO

Project Number ECO01371 Scale @ A3 1:40,000 Date Created FEB 2021

Figure Number 1 Rev -

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Figure 2

Phase 1 Habitat Plan



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- Legend**
- Application boundary
 - Main site**
 - Amenity planting
 - Building
 - Hardstanding
 - Scrub
 - Semi-improved grassland
 - Tree / scrub belt
 - Retained / enhanced habitats on main site
 - Native trees (all to be lost)
 - Hedge (all to be lost)
 - South West Site (all to be retained or enhanced)**
 - Broadleaved woodland
 - Broadleaved woodland plantation
 - Building
 - Existing path
 - Existing timber platform
 - Hardstanding
 - Pond
 - Scrub
 - Semi-improved grassland
 - Tree / scrub belt

Rev	Description	By	CB	Date



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Client -

Project Bracknell Data Centre

Title Phase 1 Habitat Plan

Status DRAFT Drawn By CR PM/Checked By TO

Project Number ECO01371 Scale @ A3 1:2,000 Date Created FEB 2021

Figure Number 2 Rev -

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Figure 3

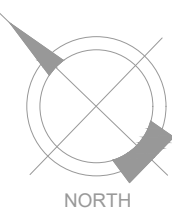
Landscape Strategy



Landscape Key:

- Application Boundary
- Outer Security Fence
- Inner Security Fence
- Water Easement
- Gravel
- Reinforced Modular Grass Paving - Supplied by Grass Concrete Ltd (or similar approved) To be sown with a wildflower mix
- Existing Trees to be Removed
- Existing trees to be Retained
- Tree canopies beyond boundary to be trimmed to avoid conflict with 10m clear zone
- Existing Vegetation
- Broadleaf Tree and Shrub Planting
- Conifer Tree Planting
- Native Shrub Planting
- Woodland Interplanting
- Hedgerow Planting
- Wildflower Grassland
- Wildflower Turf
- Restored Natural Grassland
- Woodland Wildflower and Grass Mix
- Bird Nesting Box
- Bat Roosting Box
- Invertebrate Housing
- Reptile Hibernaculum
- Hedgehog House
- Logpile
- Biohavens

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P06	Retained trees added along NE boundary.	AH	DB	26.02.21
P05	Recreational ground added to South-Western perimeter.	AH	DB	10.02.21
P04	Landscape proposals updated to current site layout.	AH	DB	10.12.20
P03	Updated to current site layout.	AH	DB	16.11.20
P02	Landscape Proposals updated to current site layout.	AH	DB	27.10.20
P01	Fences and dimensions clarified, tree planting added.	AH	DB	29.09.20
Rev	Description	By	Ckd	Date



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Project Bracknell Data Centre

Title Site Layout Plan - Landscape Strategy

Status	Scale	Date Created
For Planning	1:1000 @A1	October 2020
Task Team Manager	Information Author	Task Information Manager
DB	AH	DB
Document Number		
20305B-RPS-SI-XX-DR-A-9530		
Project Code - Originator - Zone - Level - Type - Role - Drawing Number		
RPS Project Number		Revision
NK020305		P06
rpsgroup.com		



APPENDICES

Appendix A

Relevant Legislation

GREAT CRESTED NEWTS

Great Crested Newts *Triturus cristatus* are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.) a Great Crested Newt;
- possess a Great Crested Newt;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by Great Crested Newt for shelter or protection, or disturb any animal occupying such a structure or place; and sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Great Crested Newts are also listed on the UKBAP as a Priority Species and are listed as a species of principal importance for biodiversity in England & Wales under Section 41 of the Natural Environment & Rural Communities Act (2006).

REPTILES

All common UK reptile species (Adder *Vipera berus*, Grass Snake *Natrix Helvetica*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis*) are protected through part of Section 9(1 and 5) of the Wildlife & Countryside Act 1981 (as amended). This prohibits:

- Intentional or reckless injuring or killing;
- Selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- Publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

BIRDS

All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

Schedule 1 birds cannot be intentionally or recklessly disturbed when nesting and there are increased penalties for doing so. Licences can be issued to visit the nests of such birds for conservation, scientific or photographic purposes but not to allow disturbance during a development even in circumstances where that development is fully authorised by consents such as a valid planning permission.

BATS

All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 as European Protected Species. It is an offence to:

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and
- damage, destroy or obstruct access to bat roosts

A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

A licence will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe, and Lesser Horseshoe.

BADGER

Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury. The act makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so;
- Intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

A sett is defined as "any structure or place that displays signs indicating current use by a badger".

DORMOUSE

Hazel Dormouse *Muscardinus avellanarius* is fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. The Regulations prohibit:

- Intentionally, recklessly or deliberately kill, injure or take a Dormouse;
- The deliberate disturbance of this species in such a way as to be significantly likely to affect:
 - Their ability of to survive, hibernate, migrate, breed, or rear or nurture their young; or;
 - The local distribution or abundance of Dormice.
- Damage or destruction of a breeding site or resting place (nest);
- The possession or transport of Dormice or any other part of.

Dormice are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:

- Intentional or reckless disturbance (at any level);
- Obstruction of access to any place of shelter, breeding or rest;
- Selling, bartering or exchange of these species, or parts of.

Offences can be deliberate, intentional or reckless and penalties for any of the above include fines of up to £5k and imprisonment of up to 6 months, per animal affected.

Dormice are also listed on Section 41 of the NERC Act 2006 as a Species of Principal Importance; national objectives & targets include the maintenance of the geographical range and viability of existing Dormice populations to ensure that it remains in favourable conservation status.

Appendix B

Bat Survey Results Summary - September & October

Table B1 - Dusk Emergence B4 - 15/09/2020

Time	Species	Comments
19:02		Survey start
19:17		Sunset
19:29	Noctule	Faint, Heard not seen (HNS), 2 passes
19:40	Common pipistrelle	HNS, 2 passes
19:45	Soprano pipistrelle	HNS, single pass
19:49	Noctule	HNS, 2 passes
20:04	Common pipistrelle	HNS, 4 passes
20:05	Common pipistrelle	HNS, single pass
20:10	Common pipistrelle	HNS, 2 passes
20:14	Common pipistrelle	HNS, total of 9 Common pipistrelle passes between 20:14 and 20:19
20:26	Common pipistrelle	HNS, single pass
20:30	Common pipistrelle	HNS, single pass
20:35	Common pipistrelle	HNS, 3 passes
20:37	Common pipistrelle	HNS, 2 passes
20:39	Soprano pipistrelle	HNS, 3 passes
20:41	Common pipistrelle	HNS, single pass
20:44	Common pipistrelle	HNS, single pass
20:45	Common pipistrelle	HNS, 2 passes
20:47		Survey end

Table B2: Dawn Re-entry B1 - 16/09/2020

Time	Species	Comments
04:40		Survey start
05:27	Noctule?	Possible noctule observation by surveyor, not recorded by bat detector
06:40		Sunrise
06:55		Survey end

Table B3: Transect Survey of Main Site – 16/09/20

Time	Location	Species	Comments
19:05	1		
19:10	2		
19:15	3		Sunset 19:17
19:21	4		
19:25	5		
19:29	6		
19:37	7	Soprano pipistrelle	Seen commuting past at 19:42
19:43	8		
19:48	9		
19:53	10		
20:03	1		
20:11	2		
20:16	3	Common pipistrelle	Two passes at 20:20 not observed by surveyor
20:22	4	Common pipistrelle	Three passes not observed by surveyor
20:28	5		
20:33	6	Common pipistrelle	Observed foraging in woodland opening. Six passes between 20:34 and 20:39
20:40	7	Soprano pipistrelle, Common pipistrelle	Two passes by each species not observed by surveyor
20:45	8		
20:50	9	Noctule, Common pipistrelle	Four noctule passes not observed by surveyor, single pipistrelle pass
20:56	10		

Table B4: Remote Recording – September and October 2020

Survey Dates	Number of nights recording	Species			Total Count
		Common Pipistrelle	Soprano Pipistrelle	Noctule	
21.09.20 to 26.09.20	5	9	1	1	11
03.10.20 to 08.10.20	5	0	0	1	1

Appendix C

Biodiversity Net Gain Assessment Summary

BIODIVERSITY NET GAIN (BNG) ASSESSMENT

Methodology

A Biodiversity Net Gain (BNG) Assessment was undertaken to the biodiversity gain or loss based on the proposed landscape strategy. The landscape proposals for the proposed development are shown on Figure 3.

The development proposals have been designed to maximise the biodiversity value of the green infrastructure around the development footprint of the data centre and associated infrastructure.

Within the main site large areas of hardstanding will be removed and established with wildflower grassland using native species mixes appropriate for the soil type and locality. The existing tree belt around the perimeter will be retained and subject to enhancement through the removal of non-native ornamental shrubs and replanting with native species to create a tree belt with high value for a range of wildlife.

The Recreation Ground forms a secondary part of the red line application area and will not be subject to development activities. The existing planted woodland and former amenity grassland will be subject to enhancement through the establishment of woodland ground flora and grassland wildflower enrichment.

The BNG assessment was carried out using the Biodiversity Metric published on the Natural England website. Pre-development habitat areas have been measured from the Phase 1 habitat plan with reference to the Tree Survey Plan. Information on the botanical composition and ecological condition of the existing habitats was obtained during the Phase 1 habitat surveys undertaken in spring and summer 2020.

Results

The BNG assessment calculator spreadsheet is provided in an Annex at the end of this letter report.

A summary of the assessment of pre-development habitats is given in Table A1 and Table A2. The BNG assessment of Habitat Units in the completed development is summarised in Table A3, A4 and A5 with the proposed new and enhanced habitats shown the landscape strategy plan.

The overall results in terms of total gain or loss in Biodiversity Units, Hedgerow Units and by percentage is shown in Table A6.

Table A1: Summary of BNG assessment of pre-development block habitats.

Pre-development Habitat	Area (hectares)	Total habitat units	Area retained / enhanced	Area lost (hectares)	Biodiversity Units lost
Main Site					
Introduced (ornamental) shrubs	1.02	2.04	0.106	0.91	1.83
Amenity grassland (equivalent to poor semi-improved)	0.58	2.32	0.06	0.52	2.08
Tree belt (urban woodland)	0.27	1.62	0.247	0.02	0.14
Dense Scrub	0.04	0.24		0.04	0.24
Buildings and hardstanding	5.61	0		5.61	0

Pre-development Habitat	Area (hectares)	Total habitat units	Area retained / enhanced	Area lost (hectares)	Biodiversity Units lost
Recreation Ground					
Broadleaved woodland	0.471	3.42	0.471	0	0
Young planted trees	0.417	2.02	0.417	0	0
Semi-improved grassland	0.699	3.38	0.699	0	0
Pond	0.293	4.25	0.293	0	0
Tree belt (urban woodland)	0.156	1.51	0.156	0	0
Buildings and hardstanding	0.354	0	0.354	0	0
TOTALS	9.91	20.81	2.8	7.11	4.29

Table A2: Summary of BNG assessment of pre-development linear habitats.

Pre-development Habitat	Length (km)	Total hedgerow units	Length retained	Biodiversity Units retained	Length lost (km)	Biodiversity Units lost
Native Hedgerow	0.08	0.32			0.08	0.32
Ornamental hedges (moderate)	0.26	0			0.929	0
Ornamental hedges (poor)	0.929	0			0.26	0
Line of trees	0.344	1.376	0.34	1.37		
TOTALS	1.61	1.7	0.34	0.37	0.20	0.32

Table A3: Summary of BNG assessment of post development habitat creation

Habitat	Size in hectares	Biodiversity units
Buildings and hardstanding	2.66	0
Amenity grassland - wildflower turf to be short mown)	1.57	5.64
Neutral grassland – wildflower grassland	1.68	9.41
Tree belt (urban woodland)	1.12	2.21
Reinforced track with wildflower grass	0.07	0.14
TOTAL	7.11	17.40

Table A4: Summary of BNG assessment of post development habitats enhancement

Habitat	Size in hectares	Biodiversity units
Conversion of introduced shrub to urban woodland	0.106	0
Conversion of amenity grassland to wildflower grassland	0.06	5.64
Neutral grassland – wildflower grassland	0.247	9.41
Broadleaved woodland (Recreation Ground) Improved condition	0.117	2.21
Wildflower enrichment of semi-improved grassland	0.699	0.14
TOTAL	1.23	9.35

Table A5: Summary of BNG assessment of post-development linear habitats.

Habitat	Length (km)	Biodiversity Units
Native hedgerow (Recreation Ground)	0.404	1.49
TOTAL	0.404	0.12

Table A6: Summary of BNG assessment of post-development linear habitats.

Habitat	Baseline (pre-development)	Post development	Gain / Loss (Units)	Gain / Loss (%)
Habitat Units	20.81	37.09	16.29 (gain)	78.28%
Hedgerow Units	1.7	2.86	1.17 (gain)	68.84%