Ecological Impact Assessment



Catalyst: Phase 4, Bicester May 2024



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Plan 1: Habitat Features 16582/P01



Summary

- S.1. This technical report has been prepared by Tyler Grange Group Ltd fo Quo o behal of Albi n La d (Thre) Limited. t se s o t t e findin s f an ecologi al techni al rep rt at Bice ter Gate ay, Bices er, Oxfordshire, here fter refer ed o as 'the site . The propo als to i for a new p anning appl cat on or the deve op ent of new employment space, ncluding a sociated infra tru ture and landsc ping.
- S.2. The rop sal for the ite ave been in ormed by previou ou line and reserve matters his oricall gr nted for th si e. ue to t e simi ar nat re of the rop sals, the previous surveys and rtalened the si e be wee 2016 and 202 and ot er phases of the Biceste Catal stee ithin the wider and scope, it is a ticlicate that the fall an ansite recorded uring the previous sorveys will still be present onsite.
- S.3. An updat d'ex ended' Phase 1/UK Habitat Cla sification (UK Hab) survey nd data se rc was undertake on the 1st ebrua y 2024 an M y 2 24. A s mma y f the result are as follows:
 - he site is com rised of species-rich gra sland charac eristic as oth r ne tral grasslan .
 - The si e als c ntains narr w strip o lowland m xed deci uous woo lan , a prior ty habita , an boun ed y edgerow w th tre s on the western nd ea ter boundarie identified withi the Oxfor shir Biodive sity Act on P an; a d
 - The ite c ntains habitats that colld support common indiwid spread foraging and commuting bats, com on spicils of nesting and foral ingibilds and he gehog.
- S.4. In t rms o prote ted sit s, there are no statu ory designated si es wi hin th Zo e f I fluen e (ZoI) and two non-statutor sites w thin 2km of t e site. Bicester Wetland ese ve Loca Wild ife ite (LWS) nd Bo lers Co se ildl fe Site are lo ated .4k east and 0.65km s uth east o the ite respe ti ely. Gi en the di tances i volved nd nature of he pr posal no adverse dir ct o indir ct imp cts to either of th se sit s a e anticipate a a result o the p oposed deve op ent duri g the cons ru tion or oper tional p ase. Theref re, o specifi mitigat on is requi ed.
- S.5. he proposed evelopmen wil retant e majority of woo la dad species- ich hedg rows wit tre sind grasslind ad acent to thinhedger ws. Retaine ha itats will be rojected with appropriate fencing and through he implementation if a Contruction Environmental Management Plan (C MP) incorporating standar best ractive pollutions measures.
- The e ar n feature o site to upport ro sting ba s, nd most b undary fea ures w ll be r taned o con inue to s.6. provid foraging an commuting ro te firic mm n species of bals with we eight conditions. Should woody veg tation on he site be removed during this circle represents a sting bild season (Mirch-Augus, inclusive), pre-wirks circle y an ecological clerks if wirk would be required to etermine whether active bird in eight circle represents an into check for the present of edience.
- The propo als will esul in a n t los of n abitat u it (-64.4 %) nd a sm ll net gan in he gerow units (4 35% as such off ite u its wil be required to ac ieve 10% BNG. The number of offsite units required are 18.50 habit to its and 0.66 hedger would its.
- S.8. To meet the rad ng rules for Biodiversity Net Gain (BNG) compliance, the minimum requirements for offsite unit creation are as follows:



- Woodland and Forest Habitat: Offsite creation of new Lowland Mixed Deciduous Woodland habitat is required to achieve a like-for-like replacement of 1.29 units.
- **Grassland Habitat:** Offsite creation of Other Neutral Grassland habitat equivalent to 15.86 units is necessary.
- Overall BNG Requirement: Additionally, an offsite creation of 1.37 habitat units is needed to achieve a 10% increase in habitat units as per the requirement.
- **Hedgerow units:** Offsite creation of Species-rich native hedgerow with trees associated with bank or ditch is required to achieve a like-for-like replacement of 0.14 units.
- S.9. A Habitat Management and Maintenance Plan (HMMP) to ensure the long-term management of the proposed habitat enhancements is expected to be secured via a suitable worded planning condition.
- S.10. An appropriately worded planning condition is expected to secure a suitable HMMP or Ecological Enhancement Plan to ensure the long-term management of the proposed habitat enhancements, including hedgerows, grassland and woodland, as well as provision of enhancements for specific species groups such as bird boxes.



Section 1: Introduction and Context

Introduction

1.1. This technical report has been prepared by Tyler Grange Group Ltd on behalf of Quod on behalf of Albion Land (Three) Limited. It sets out the findings of an ecological impact assessment at Bicester Gateway, Bicester, Oxfordshire (OS Grid Reference SP 5723 2102), hereafter referred to as 'the site'. See **Figure 1.1** for the indicative red line boundary.



Figure 1.1: Indicative red line boundary (© Bing Aerial Imagery, 2024)

1.2. This assessment has been undertaken to inform a new planning application for the development of new employment space, including associated infrastructure and landscaping. The site proposals are shown in **Appendix 1** with proposed landscaping plans in **Appendix 2**.

Site Context

- 1.3. The site is approximately 3.68ha in size and comprises a grassland field with a small area of lowland mixed deciduous woodland bounded by hedgerow with trees. The site is located to the south of Bicester in Oxfordshire. The site is bounded by Wendlebury Road to the east and the A41 dual carriageway lies immediately to the west. A construction site for the wider Bicester Gateway site lies to the east, with a larger retail development situated to the north-east.
- 1.4. The site forms part of a previous approved scheme. The previous approved schemes included outline and reserved matters planning applications (reference 16_02586_OUT and 22_02025_REM respectively), submitted to Cherwell District Council in 2017 for the site. An Ecological Assessment (EA) was produced by Ecology



Solutions i Decemb r 2016 to i for the utline lanning ap lic tio for he it. A part of the outline plan ing appication, cology So utions in tally nd rtook a su te of e ol gic I su vey on he Site (s pat of a wi er land hol ing) n 2016 nd 201. Details of the sirving with the sirving under a disconnection of this report.

- 1.5. As pat of the reserved matters application and the associated ecology related conditions, Ecologia Silutions ndertoo an uplated about at walkove sirving in Octibe 2019 and in April 202 on eass so the habit ats resent in the iteration ider and consider any changes in the interior enint period since the surving swer last undertake. The results of the updit discretely are outlined in Section 2 below and within the Ecology Stitem in the Pursiant to Consist one 10, 24 and 25².
- 1.6. The roposals to inform h new lannin appli atio in lude a m nor layout change f om the revious utline and reserved matters planni g appli ati n. Cherw II District Council appr ve the revious p an ing applications ased ns rv ys ndert ken in etw en 016 and 202. Due to the million or channes for the new lanning application, no updated it visis and data earch have been und retaken in 2 24. Of fur he Phase II is rve some proposed at this stage to inform the neighboring application.

Purp se

Th s eport:

- 1.7. Uses available balkground data dital o inforce previors landing a plications on the site and results of the field survey to discribe an evaluate the ecological features present within the likely "one of line ce" (Zolof the proposed evelopment;
 - Descr bes he ac ual or poten ial e ologic l'issues and opportuni les that mig t'ari e because o the site's de elopment an
 - Where appropr at , makes ommitmen s for mi igation m asures for dv rse e fects on ecol gical eat res as well as eco og cal enhancemen s, to ensu e c nfo mity with p licy and legislatio lis ed in **Appendi 3**.

his assess ent and the terminol gy used are co sistent with the Guidelines for P eliminary cological A praisal⁴ and to e Guidelines or Ecological I pact Asses ment⁵. A full methodology is set out in **Appendix 4** 1.8. and within the EA report (Ecology Solutions, 2016).

⁵ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.



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¹ Ecology Solutions (2016) Ecological Assessment. Bicester Gateway, Bicester. Reference 7057.EcoAss.vf1

² Ecology Solutions (2022) Ecology Statement: Conditions 10, 24 & 25. Bicester Gateway.

³ Defined by the CIEEM (2018) Guidelines for Ecological Impact Assessment as the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries

⁴ CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Methodology

1.9. Full methods for the updated data search, phase 1/ UK Habs survey and Biodiversity Net Gain (BNG) work can be found in **Appendix 4.**

Quality Control

1.10. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute's Code of Professional Conduct⁶.

Limitations and Assumptions

- 1.11. Whilst the original updated habitat survey was undertaken in February, some plant species may not have been visible as such an updated survey was carried out in May 2024 to characterise the grassland on site which provided sufficient information to be able to categorize the type of grassland found on site at that point in time.
- 1.12. No access to land adjacent to the site was permitted or restricted by health and safety, including along the A41 to determine the presence of badger setts.

⁶ CIEEM (2022) Code of Professional Conduct, CIEEM, Winchester



Section 2: Ecological Features and Evaluation

Designated Sites

- 2.1. The data search was based on records purchased from Thames Valley Environmental Records Centre (TVERC), as well as data from the Multi-Agency Geographic Information for the Countryside (MAGIC). See **Appendix 4** for full methodology.
- 2.2. The data search returned no National Sites Network (Natura 2000) or nationally designated statutory sites within 10km and 2km of the site respectively and two non-statutory designated sites within 2km of the site. Bicester Wetland Reserve Local Wildlife Site (LWS) is located approximately 0.4km to the east of the site. Bowlers Copse Wildlife Site is located approximately 0.65km south east of the site and designated for its semi-natural lowland, mixed deciduous woodland. LWSs and Wildlife Sites are considered to be of County ecological importance.
- 2.3. The site falls into the Site of Special Scientific Interest (SSSI) Impact Risk Zone for Wendlebury Meads and Mansmoor Closes SSSI. However, the development does not fall into any of the criteria set out by Natural England requiring further assessment, such as livestock and poultry units. As such consultation with Natural England is not considered necessary, and this is **not discussed further within this report**.

Habitats and Flora

- 2.4. The habitats present on site are summarised below in **Table 2.1**, along with a description of the composition of the main plant species present and an assessmen
- 2.5. t of their ecological importance. The location of habitats are shown on the Habitats Features 16582/P01.



Table 2.1: Habitats and Flora

Habitat **Description and Species Photograph Ecological Importance** Primary code: Based on the surveys conducted in February and May, the grassland The neutral grassland was diverse and had a species-rich sward as such onsite meets the criteria for "Other Neutral Grassland." The g3c Neutral grassland has been assessed as being of local ecological importance. February survey did not capture certain indicator species due to Secondary code: timing, leading to an ambiguous classification until the optimal 10 Scattered scrub survey season (spring 2024). 13 scattered dwarf shrubs 16 Tall forbs The grassland field is nutrient-poor, grazed by rabbits, and 18 species-rich grassland informally managed. It features ridge and furrow patterns and contains a diverse mix of flora. Notable species recorded include agrimony (Agrimonia eupatoria) and ox-eye daisy (Leucanthemum vulgare), which are indicators of lowland meadow grassland. Additionally, ruderal species such as willowherb (Epilobium spp.), common nettle (Urtica dioica), teasel (Dipsacus fullonum), and hemlock (Conium maculatum) are encroaching from the hedgerows. The presence of wet grassland areas with hard rush (Juncus inflexus) indicates persistent moisture throughout the year. These features collectively support the classification of the grassland as "Other Neutral Grassland," **Previous Surveys** During 2016, the field supported a semi-improved grassland sward with a comparable species composition. Species present included Yorkshire-fog Holcus lanatus, timothy Phleum pratense, false oatgrass Arrhenatherum elatius, meadow-grasses Poa spp., broadleaved dock Rumex obtusifolius, ribwort plantain Plantago lanceolata, ground-ivy Glechoma hederacea, creeping buttercup Ranunculus repens, teasel, dandelion Taraxacum officinale agg., hedge woundwort Stachys sylvatica, creeping thistle Cirsium arvense, cleavers Galium aparine, lesser celandine Ranunculus ficaria, wood avens Geum urbanum, yarrow Achillea millefolium, ragwort Senecio jacobaea and herb-Robert Geranium robertianum. Rushes Juncus spp. were also present in wetter areas, with occasional agrimony and common knapweed Centaurea nigra also recorded in some locations. The margins of the fields support areas of more ruderal vegetation which were dominated by common nettle, willowherbs and cleavers. Between 2016 and 2022, the grassland was regularly managed by spraying and cutting to retain a short sward. At the time of survey in April 2022, the grassland appeared to be regularly managed, with a short sward (5cm), areas of bare ground, and with ruderal



	vegetation locally dominant. Localised areas of longer vegetation		
	were limited to narrow margins of the site.		
Primary Code	Hedgerows with trees run along the eastern and western	Hedgerows are a Habitat of Principal Importance (HoPI) are species-rich	
Hedgerows with trees h2	boundaries of the site. The eastern boundary comprises a species-	with a diverse structure, including semi-mature trees. All hedgerows are	
	rich hedgerow with tree associated with a dry ditch. The hedgerow	considered to be of local ecological importance.	
	is dominated by willows Salix spp., with ash Fraxinus excelsior,		
	hawthorn Crataegus monogyna and blackthorn also present.		20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Blackthorn is beginning to encroach into the grassland and a strip of		THE RESERVE THE RE
	bearded couch grass was present immediately adjacent to the		
	hedgerow.		
	The western boundary comprises a species-rich hedgerow with		
	trees and scrub dominated by ash trees, blackthorn, and hawthorn		
	scrub with dogwood <i>Cornus sanguinea</i> . Oak trees are present within		
	the hedgerow. Ground flora comprises lords-and-ladies Arum		Western hedgerow with trees
	maculatum, dog's mercury Mercurialis perennis and ivy.		
	, , , , , , , , , , , , , , , , , , , ,		
	Previous Surveys		
	Previous surveys of the hedgerows with trees comprised similar		
	species to currently present with a sparce structure.		
Primary Code:	The site supports areas of lowland mixed deciduous woodland	Areas of lowland mixed deciduous woodland and scattered scrub	
Lowland mixed deciduous	which were previously identified as mixed scrub. This has now	comprises a range of native species and structural diversity. Lowland	
woodland w1f	matured with woodland starting to form. The woodland comprises	mixed deciduous woodland is a priority habitat, although it is a common	
woodiand wii	comprising horse chestnut <i>Aesculus hippocastanum</i> trees,	habitat within the wider landscape, it is considered to be of local	
	dogwood, hawthorn, blackthorn and willow saplings.	ecological importance.	以有效的数据, 可以为中央。
	Scattered bramble <i>Rubus fruticosus agg.</i> scrub is also present within		Application of the control of the co
	and adjacent to the site.		



Protected and Notable Species

2.6. The below section sets out the potential for protected species on site based on the updated data search and the results of the previous surveys. Species which are considered likely absent from the site based on professional judgement, following consideration the of habitats within the site, signs of species presence at the time of survey and data search records, are not discussed.

Amphibians

- 2.7. The 2016 data search within a 2km radius of the site did not identify any great crested newt (*Triturus cristatus*) records. However, a more recent search in 2024 revealed a number of great crested newts records, with the closest record located 1.7km west of the site dating back to 2014. Additionally, five European Protected Species (EPS) licenses were issued for great crested newt activities within 2km, including one located 0.75km east (reference 2014-1173-EPS-MIT) for damage to breeding and resting sites. The 2024 data search also pinpointed several ponds within 2km that have supported positive great crested newt license returns, the nearest being 0.63km southeast from 2014.
- 2.8. In contrast, the 2024 data search yielded one record of a common toad (Bufo bufo) within 2km of the site, but this record dates back over a decade to 2010.
- 2.9. No waterbodies were found within the site boundary, although two ponds were located within 250m. Adjacent ditches, mainly dry and lacking marginal or aquatic vegetation, were observed alongside hedgerows.
- 2.10. Notably, a large pond situated 30m east of the site was stocked with fish during 2016 surveys, rendering it unsuitable for great crested newt breeding. An additional small field pond approximately 250m east of the site, separated by a construction area for other phases of the outline planning application, was also noted. Surveys conducted by Ecology Solutions in 2013 of waterbodies near Promised Land Farm to the east revealed no evidence of breeding great crested newts among six surveyed waterbodies, including wet ditches and ponds. Barriers to great crested newt movement and dispersal include the A41 dual carriageway to the west of the site and a stream approximately 300 meters east.
- 2.11. Although terrestrial habitats on the site could potentially provide suitable habitat for great crested newts, the absence of aquatic habitat within the site and its surrounding area, combined with the lack of recent records within 500m of the site and presence of dispersal barriers such as roads, lead to the conclusion that the site is unlikely to support great crested newts.
- 2.12. Given these findings, great crested newts are considered likely absent from the site and are not further discussed within this report. Other more mobile amphibian species such as common toad may be present. Common toads are a priority species under The Natural Environment and Rural Communities (NERC) Act 20067. It is considered any population utilising terrestrial habitats on site, such as the grassland, scrub and hedgerow bases, will also be using further habitats beyond the site boundary and not reliant site alone.
- **2.13.** As such any population of amphibians such as common toad on site would be of **negligible ecological importance.**

⁷ Section 40 of the NERC Act puts a duty on local authorities to have regard for the conservation of species and habitats listed at Section 41, including when considering planning applications.



Bats

- 2.14. The data search undertaken in 2016 returned a small number of bat records from within 2km of the site. The closest record was a common pipistrelle *Pipistrellus pipistrellus* located approximately 1km north east of the site 2009.
- 2.15. In addition, two granted EPS licences for bats were returned within a 2km radius of the site. The closest licence was located 1.1km west of the site (case reference: EPSM2010-2344) and was granted for the destruction of a breeding and resting place of brown long eared *Plecotus auritus* and common pipistrelle bats.

Bat Activity

- 2.16. Previous activity and static surveys undertaken in 2016 and 2017 recorded low levels of soprano pipistrelle *P. pygmaeus,* common pipistrelle and brown long-eared activity exclusively along the boundary features with no feature or treeline being of relatively greater importance.
- 2.17. No buildings or trees onsite suitable for roosting bats.
- 2.18. The site is located adjacent to the A41 which is a main road and well lit. The northern road leading to a hotel is also lit with street lighting and security lighting associated with the hotel and car parking area. However, the hedgerows and treelines, particularly around the field boundaries of the site have the potential to support foraging and commuting bats onsite and connectivity to the wider landscape to the south and east. Based on the previous surveys and data search results, it is assumed that light tolerant species, such as common and soprano pipistrelle, could forage within and adjacent to the site. The habitats onsite do not provide significant commuting and foraging opportunities for bats due to their small size and low diversity.
- 2.19. Overall, the assemblage of bats utilising the site for foraging and commuting is considered to be of **up to local ecological importance**.



Birds

2.22. The 2016 data search returned a number of records of protected and notable birds species within 2 km of the site. Records returned from the 1km grid square which includes the site included the following birds listed on the Red List of Conservation Concern: cuckoo Cuculus canorus, house sparrow Passer domesticus, merlin Falco columbarius, curlew Numenius arquata, yellowhammer Emberiza citrinella and starling Sturnus vulgaris. The 2024 data search also returned records for barn owl Tyto alba, fieldfare Turdus pilaris, greenfinch Chloris chloris,



house martin *Delichon urbicum*, lapwing *Vanellus vanellus*, linnet *Linaria cannabina*, mistle thrush *T. viscivorus*, skylark *Alauda arvensis* and swift *Apus apus*.

- 2.23. Bird species recorded during the 2016 survey include woodpigeon columba palumbus, chiffchaff *Phylloscopus collybita*, chaffinch *Fringilla coelebs*, wren *Troglodytes troglodytes*, dunnock *Prunella modularis* and red-legged partridge *Alectoris rufa*.
- 2.24. Habitats on site, such as the grassland, hedgerows, trees and scrub, have the potential to support common and widespread nesting birds.
- 2.25. It is considered the assemblage of birds that may use the site for foraging and breeding is of negligible ecological importance, nevertheless consideration for nesting birds to avoid a breach of legislation is discussed in Section 3 of this report.

Reptiles

- 2.26. The 2016 data search returned records of slow worm *Anguis fragilis* and grass snake *Natrix helvetica* returned from a location approximately 1.3km west of the site at the closest point from 2003. Ecology Solutions undertook reptiles survey on the site in September 2017, and no reptiles were recorded within the site (full surveys results are detailed within the Reptile Addendum Report⁸. The updated data search did not record any records of reptiles within 2km of the site.
- 2.27. The habitats present within the site are considered to offer sub-optimal opportunities for reptile species, on account of the short sward and regular management. Moreover, as per great crested newt section the site is relatively isolated from more suitable reptile habitats in the local area, notably by the A41 dual carriageway located immediately to the west.
- 2.28. Given the habitats are in a similar condition to previously recorded, the isolation of the site and barriers to dispersal, including new construction in the north and east of the site, and the lack of records within 1km of the site, reptiles are considered likely absent and will not be discussed further within this report.

Other Mammals

2.1 The data search returned records of western European hedgehog *Erinaceus europaeus* from within 2km of the site. Almost all the site has the potential to support foraging and sheltering hedgehog. Due to the further optimal habitat in the wider landscape the site has been deemed **negligible ecological importance** for hedgehogs.

Invasive Species

2.29. No evidence of invasive species listed under Schedule 9 of the Wildlife and Countryside Act (WCA), were recorded on or immediately adjacent to the site during the 2024 survey.

⁸ Ecology Solutions (2017) Reptile Addendum Report. Bicester Gateway, Bicester. Reference: 7057.ReptileRep.vf



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Section 3: Ecological Impacts, Mitigation, and Enhancement

Proposed Development

3.1. The proposals are for the development of new employment space, including associated infrastructure and landscaping. The potential impacts at this site as a result of the proposed development are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 3**.

Design Evolution

- 3.2. The design of the Development has been iterative, and in accordance with policy and best practice guidance, follow the 'mitigation hierarchy'. As such, the Development has been designed to avoid and retain the most important ecological features to ensure they can be managed in the long-term to enhance their importance for biodiversity. Where this is not possible, new habitats have been proposed to compensate for habitat losses with the aim of maximising the overall ecological value of the habitats proposed on site. A summary of how the design follows the mitigation hierarchy is set out below:
 - Retaining flora margins/buffer strips along field boundaries and adjacent to boundary hedge/vegetation;
 - Retained existing woodland and hedgerows (and field margins generally) within and adjacent to the site;
 and
 - Use of native species and species within a known wildlife value within landscape planting.

Designated Sites

Non-statutory Sites

3.3. Bicester Wetland Reserve LWS and Bowlers Copse Wildlife Site are located 0.4km east and 0.65km southeast of the site respectively. Given the distances involved and nature of the proposal, no adverse direct or indirect impacts to either of these sites are anticipated as a result of the proposed development during the construction or operational phase. Therefore, no specific mitigation is required.

Habitats and Flora

- 3.4. The majority of the built development will be located within the central grassland parcel of the site. Where possible, grassland should be adjacent to the woodland and boundary hedgerows.
- 3.5. Boundary hedgerows with trees and woodland will be retained and protected as part of the proposals. During construction, retained habitats include hedgerows and trees could be affected by accidental damage including root compaction. As such, they would be fenced and protected during construction in accordance with best practise guidance detailed in BS 5837:2012 'Trees in relation to design, demolition and construction' to reduce potential impacts and accidental damage.



- 3.6. Standard best practice pollution prevention⁹ is expected to be incorporated into a Construction Environmental Management Plan (CEMP) to minimise impacts, namely dust deposition and run-off, during construction on retained onsite and adjacent habitats, including hedgerows and woodland.
- 3.7. Following further surveys of the grassland, compensation for the loss of grassland and woodland will be required.
- 3.8. To increase their condition, as well as increase biodiversity and opportunities for wildlife, all retained and new hedgerows will be subject to sensitive management to create thick and dense vegetation. Such measures would be included within a Habitat Management and Maintenance Plan (HMMP) and include cutting hedges outside the breeding bird season and in late winter, after most of the berries have gone to provide food for birds over winter. Rotational cutting would also allow hedge plants to produce flowers and berries and thereby provide further foraging resource for birds, invertebrates and a range of other wildlife.

Protected and Notable Species

Bats

- 3.9. In England and Wales, bats and their roosts are protected under the Conservation of Habitats and Species Regulations (2010) and the WCA (1981) (as amended). Some bat species are also priority species; see **Appendix 3** for full details with regard to the protection of bats.
- 3.10. The proposals include the retention of the majority of ditches, trees and hedgerows on site as such, retaining the most important foraging and commuting routes for bats. Impacts associated with lighting, dust, noise during the construction phase will be minimised by the implementation of a CEMP. If any lighting is required centrally within the development this should be sensitively designed for bats as per best practice guidance and will avoid the more sensitive features (tree lines and hedgerows).
- 3.11. Through the retention of the majority of the trees and hedgerows, foraging and commuting features for bats will be maintained.

Badgers

3.12. The legislation protecting badgers, the Protection of Badgers Act, 1992, protects them against killing, injury and cruel ill-treatment as well as preventing damage, destruction or obstruction to an active badger sett, or from disturbing a badger when it is occupying such a sett.



⁹ CIRIA (2015) Construction Work Sector Guidance for Designers. Fourth edition



Birds

- 3.15. All birds, their nests and eggs, are protected by law and as such 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.
- 3.16. To avoid triggering the legislation protecting nesting birds, clearance of suitable habitat (discrete areas of woodland and hedgerow) should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time). If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced Ecological Clerk of Works (ECoW), no more than 48 hours prior to the works commencing. If any nesting birds are found to be present, an appropriate buffer zone will be implemented, within which works are excluded for the duration of the breeding attempt. Any active nests will need to be left in situ until a suitably experienced ecologist confirms that the chicks have fledge and the nest is no longer active.
- 3.17. The proposals will result in the loss of some breeding bird habitat, namely the loss of grassland fields. However, habitats where other species are likely to breed (hedgerows and trees), shall be retained and enhanced as part of the proposals.
- 3.18. Habitat retention and creation of new landscaping planting is expected to provide nesting opportunities for birds on site. Additionally, tree / pole mounted bird boxes are recommended to be incorporated within scheme, targeting species of conservation concern known to be present (expected to be secured via a suitably worded planning condition).

Other Fauna

- 3.19. Hedgehog are listed under Section 41 of the NERC Act, 2006, which are a material consideration in planning.
- 3.20. Through construction activities in close proximity to suitable habitat which may support hedgehog is to be undertaken, there is potential for killing or harm to this species if present during construction activities. As a result, should these species be found on site prior to or during site clearance activities, they will be carefully moved by a gloved hand into suitable areas of retained habitat, such as the hedgerow bases.
- 3.21. Should site clearance be undertaken during the colder months (October/November to March/April), when hedgehog (if present) could be hibernating, a pre-works check of potentially suitable habitat such as scrub habitat would be undertaken. This would be controlled as part of the CEMP, subject to planning condition. During construction, the precautionary working method employed for hedgehog will also ensure no harm to hedgehog. Implementation of these mitigation measures will ensure there is no significant adverse effect to hedgehog, if present.
- 3.22. Placement of log piles in appropriate locations, such as around the hedgerow bases, will further enhance the site by providing additional opportunities for hedgehog and other species groups such as invertebrates and amphibians to forage, breed or shelter.



Section 4: Biodiversity Net Gain

- 4.1. Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment of the Cherwell Local Plan 2011 2031, as well as the National Planning Policy Framework (NPPF), requires developments to demonstrate a net gain in biodiversity. (see **Appendix 3**). In addition, the Town and Country Planning Act requires developments to deliver at least 10% net gain.
- 4.2. A development achieves biodiversity net gain when the total biodiversity units present post-development is higher than that of the biodiversity units present on site prior to development. the Statutory metric has been used to calculate the biodiversity value of the site before and after development in terms of "biodiversity units" to calculate an overall biodiversity net gain or loss.

Existing Habitats

- 4.3. The following habitats are present within the red line boundary of the site and are shown on Habitat Features **16582/P01**. No watercourses were present. The rationale for condition assessments is detailed within the metric **16582/BNG**.
- 4.4. The following BNG calculations are based on Lowland mixed deciduous woodland as a priority habitats and hedgerows are identified within the Oxfordshire Biodiversity Action Plan (BAP).



Table 4.1: Baseline Habitats and Areas Retained and Enhanced

Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Area	Area	Area lost
					retained	enhanced	(hectares)
					(hectares)	(hectares)	
Grassland	Other neutral grassland (onsite)	2.3	Medium	Moderate	0	0	2.3
Woodland and forest	Lowland mixed deciduous	0.37	High	Moderate	0.2624	0	0.1076
	woodland						
Sparsely vegetated	Ruderal/Ephemeral	0.41	Low	Moderate	0.3	0	0.11
land							
Urban	Developed land; sealed surface	0.4	V.Low	N/A - Other			0.4
Grassland	Other neutral grassland (offsite)	0.042	Medium	Moderate	0	0	0.34
Grassland	Modified grassland	0.023	Low	Poor	0	0	0.05

Table 4.2: Baseline Hedgerows and Lengths Retained and Enhanced

Hedge number	Hedgerow type	Length (km)	Distinctiveness	Condition	Length	Length	Length lost
					retained	enhanced	(km)
					(km)	(km)	
Eastern	Species-rich native hedgerow with	0.25	v. High	Good	0.245	0	0.05
	trees - associated with bank or ditch						
Western	Species-rich native hedgerow with	0.23	High	Good	0.23	0	0.05
	trees						

Proposed Habitats

4.5. The landscape proposals, as shown within **Appendix 2** and have been used to calculate the proposed habitat areas. The rationale for target condition assessments is detailed within the metric **16582/BNG**.



Table 4.3: Created and Enhanced Habitats

Broad Habitat	Proposed habitat	Area	Created/ enhanced	Baseline condition	Distinctiveness	Target condition
		(hectares)				
Sparsely	Ruderal/Ephemeral	0.31	Retained	Moderate	Low	N/A
vegetated land						
Woodland and	Lowland mixed	0.3	Retained	Moderate	High	N/A
forest	deciduous woodland					
Individual trees	Urban tree	0.1262	Created	N/A	Medium	Poor
Heathland and	Mixed scrub	0.0244	Created	N/A	Medium	Moderate
shrub	Wilked Scrub	0.0244				
Grassland	Modified grassland	0.1323	Created	N/A	Low	Poor
Grassland	Other neutral grassland	0.4286	Created	N/A	Medium	Moderate
Urban	Introduced shrub	0.442	Created	N/A	Low	Condition Assessment N/A
Urban	Developed land; sealed surface	1.96	Created	N/A	V.Low	N/A - Other
A net gain of -16.02 habitat units, -64.43%						

Hedge number	Hedgerow type	Length (km)	Created/ enhanced	Baseline condition	Distinctiveness	Target condition
Eastern	Species-rich native	0.245	Retained	Good	V. High	N/A
	hedgerow with trees -					
	associated with bank					
	or ditch					
Western	Species-rich native	0.225	Retained	Good	High	N/A
	hedgerow with trees					



Proposed 1	Species-rich native hedgerow	0.054	Created	N/A	Medium	Moderate
Proposed 2	Native hedgerow	0.164	Created	N/A	Low	Poor
Proposed 3	Non-native and ornamental hedgerow	0.073	Created	N/A	V.Low	Poor
A net gain of 0.51 habitat units,+ 4.35%						

Results Summary

4.6. As described within the Defr Statutory Metric **16582/BNG** and summa ised elow in **igur 4.1**, ba ed on the ha itats p esent n si e th t ill b lost, retained a d ho e to be realed, the devilopment woull r sult in a loss of -16 02 habitat units, nd a gain of 0.51 h dger w nits. This is a percentage oss of -64.4 % in habitat units an a gain f 4.35% in hedgerow units.

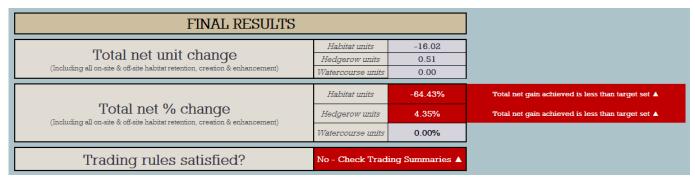


Figure 4.1: Biodiversity Net Gain Assessment Results Summary, taken from the Defra Statutory Metric.

4.7. To meet the trading rules for Biodiversity Net Gain (BNG) compliance, the minimum requirements for offsite habitat unit creation are as follows:

Habitat Units

- Woodland and Forest Habitat: Offsite creation of High distinctiveness habitat: Lowland Mixed Deciduous Woodland habitat is required to achieve a like-for-like replacement for 1.29 units.
- **Grassland Habitat**: Offsite creation of Medium distinctiveness habitat: Other Neutral Grassland habitat equivalent to 15.86 units is necessary.
- Overall BNG Requirement: Additionally, an offsite creation of 1.37 habitat units is needed to achieve a 10% increase in habitat units as per the requirement.

Hedgerow Units

- Species-rich native hedgerow with trees associated with bank or ditch: Offsite creation of Very High Distinctiveness habitat requires 0.14 units to satisfy the losses on site.
- **Species-rich native hedgerow with trees:** Offsite creation of High Distinctiveness habitat requires 0.10 units to satisfy the losses on site.
- **Overall BNG Requirement**: Additionally, an offsite creation of 0.42 hedgerow units is needed to achieve a 10% increase in habitat units as per the requirement.

Management

4.8. The results of the Defra Statutory Metric are based on the habitats within the site being maintained at a certain condition, as prescribed by the condition assessment sheets published by Defra.



4.9.	Details of habitat establishment and long-term management will be provided through the production of a HMMP The HMMP would set out the prescriptions for the establishment and maintenance of the habitats on site for 30 years.

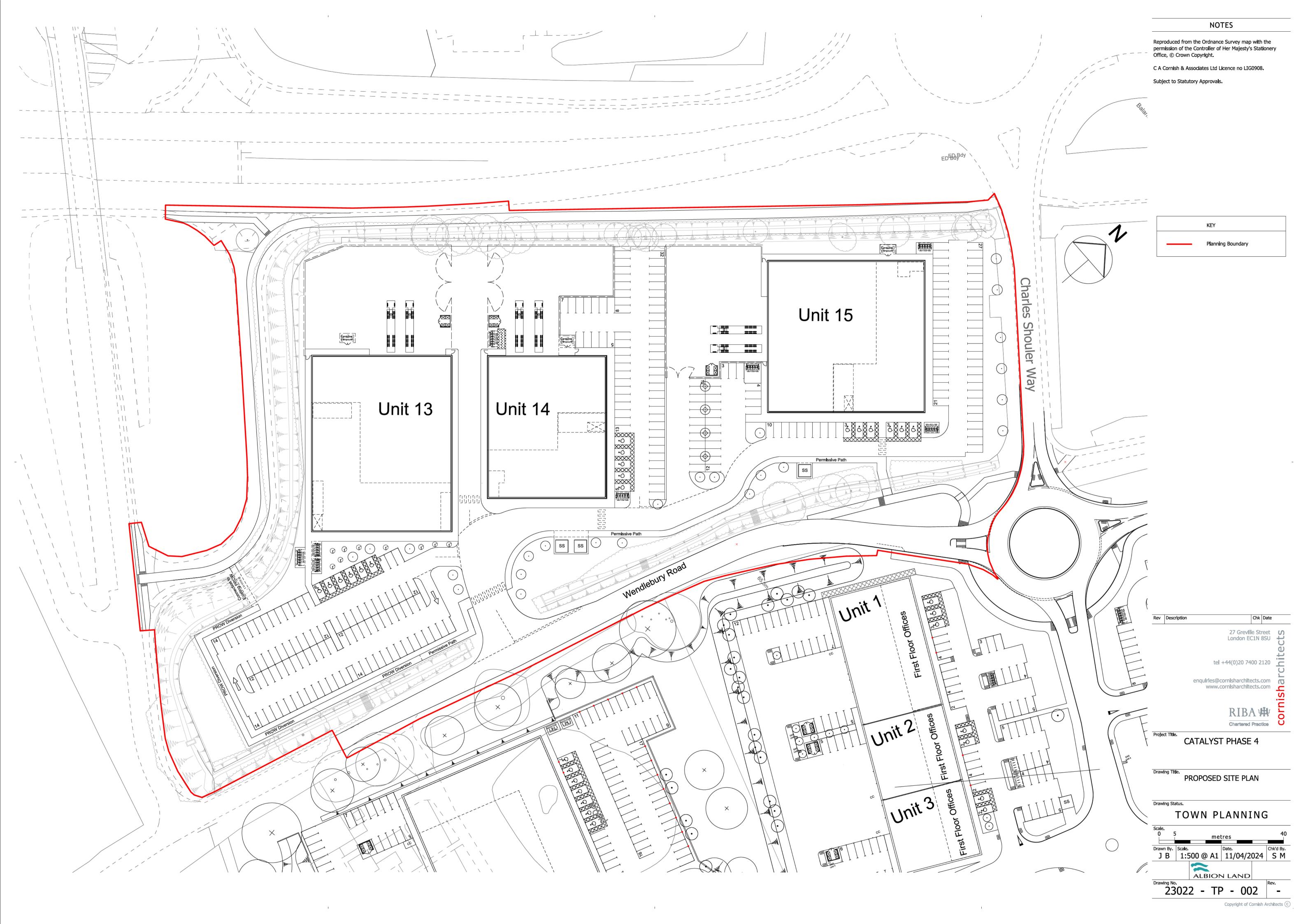
Section 5: Conclusions

- 5.1. In conclusion, the proposals for the site are broadly the same as the outline planning application. Due to the similar nature of the proposals, the previous surveys undertaken on the site between 2016 and 2022 and other phases of the Bicester Catalyst within the wider landscape, it is anticipated that the fauna onsite recorded during the previous surveys will still be present onsite.
- 5.2. There are no statutory designated sites within the ZoI and two non-statutory sites within 2km of the site. Bicester Wetland Reserve LWS and Bowlers Copse Wildlife Site are located 0.4km east and 0.65km south east of the site respectively. Given the distances involved and nature of the proposal, no adverse direct or indirect impacts to either of these sites are anticipated as a result of the proposed development during the construction or operational phase. Therefore, no specific mitigation is required.
- 5.3. The proposed development will retain the majority of woodland and species-rich hedgerows with trees. Retained habitats will be protected with appropriate fencing and through the implementation of a CEMP incorporating standard best practice pollutions measures and as set out in the Arboricultural Method Statement.
- 5.4. There are no features onsite to support roosting bats, and the majority of boundary features will be retained to continue to provide foraging and commuting routes for common species of bats which were recorded onsite. Should woody vegetation on the site be removed during the core nesting bird season (March-August, inclusive), a pre-works check by an ecological clerks of work would be required to determine whether active birds' nests are present and to check for the presence of hedgehog.
- 5.5. The proposals would result in a net loss of -16.02 habitat units (-64.43%) and a net gain of 0.51 hedgerow units (4.35%) as such it is expected that these additional units required to achieve +10% will need to obtained offsite. A HMMP to ensure the long-term management of the proposed habitat enhancements is expected to be secured via a suitable worded planning condition.
- 5.6. An appropriately worded planning condition is expected to secure a suitable HMMP and Ecological Enhancement Plan to ensure the long-term management of the proposed habitat enhancements, including hedgerows, grassland and woodland, as well as provision of enhancements for specific species groups such as bird boxes.



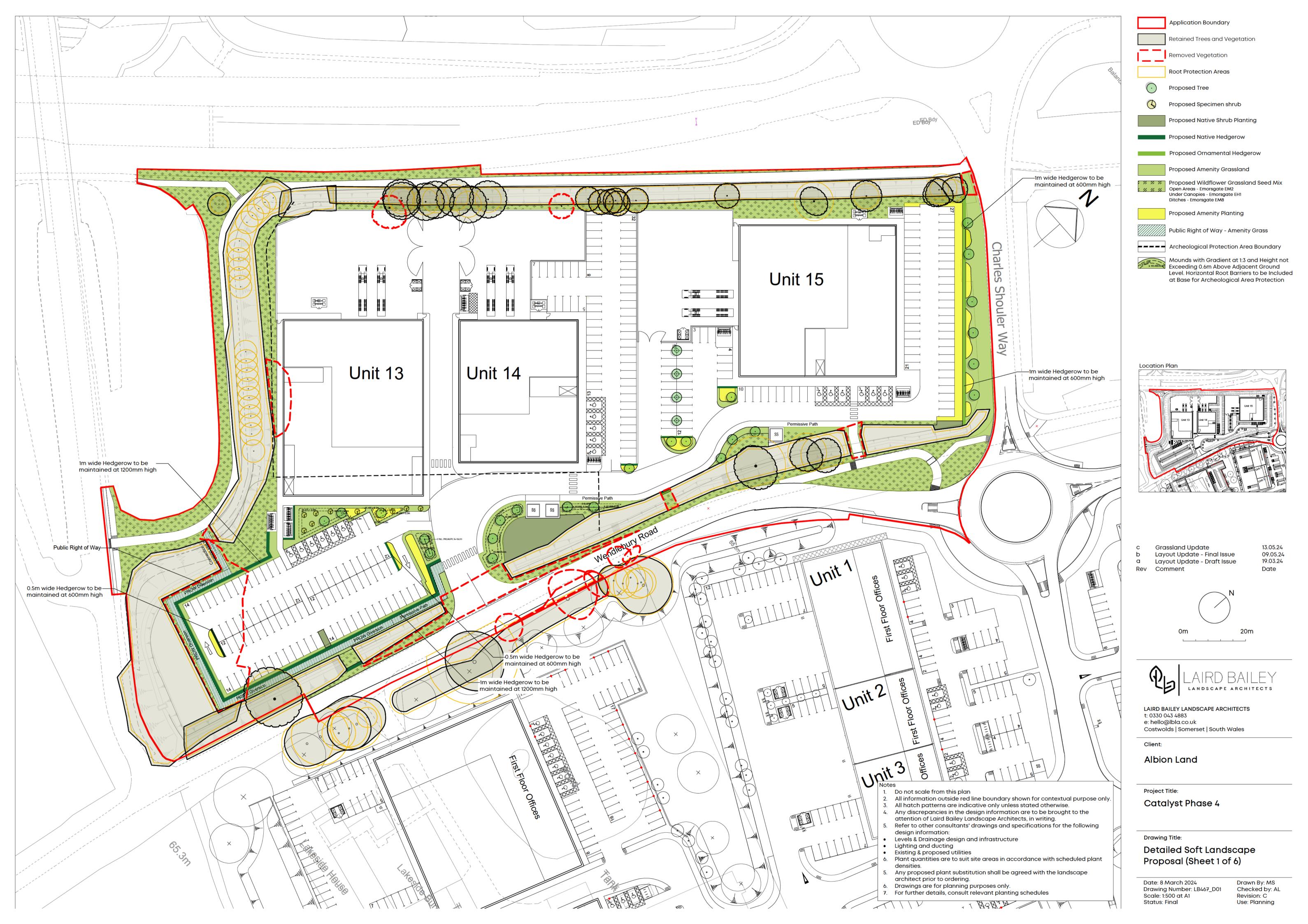
Appendix 1: Proposed Site Plan





Appendix 2: Proposed Landscape Plan





Appendix 3: Legislation and Planning Policy

Legislation

- A3.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
 - The Environment Act 2021;
 - The Wildlife and Countryside Act (WCA) 1981 (as amended);
 - The Conservation of Habitats and Species Regulations 2017 (as amended);
 - The Countryside and Rights of Way (CRoW) Act 2000;
 - The Natural Environment and Rural Communities Act (NERC) 2006;
 - The Hedgerows Regulations 1997; and
 - The Protection of Badgers Act 1992.
- A3.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).
- A3.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A3.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Environment Act 2021: Upcoming Town and Country Planning Act

A3.5. The Environment Act gained Royal Assent in November 2022. Whilst the premise of Biodiversity Net Gain (BNG) has been around prior to this, the Assent of the Act sets the Framework for future legislation to be changed. In England, BNG is mandatory from 12 February 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Developers must deliver a BNG of 10%. This means a development will result in more or better quality natural habitat than there was before development.



National Planning Policy

National Planning Policy Framework (NPPF), December 2023

- A3.6. The National Planning Policy Framework (NPPF) was updated in December 2023 and sets out the Government's planning policies for England and how these should be applied. It replaces the National Planning Policy Framework published in September 2023.
- A3.7. Paragraph 11 states that:

"Plans and decisions should apply a presumption in favour of sustainable development."

- A3.8. Section 15 of the NPPF (paragraphs 180 to 188) considers the conservation and enhancement of the natural environment including habitats and biodiversity (paragraphs 179-182)
- A3.9. Paragraph 180 states that planning and decisions should contribute to and enhance the natural and local environment by:
 - "protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and
 ecosystem services including the economic and other benefits of the best and most versatile agricultural land,
 and of trees and woodland; and
 - minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"
- A3.10. Paragraph 181 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- A3.11. Paragraph 185 states that in order to protect and enhance biodiversity and geodiversity, plans should:
 - "Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including
 the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife
 corridors and stepping stones that connect them; and areas identified by national and local partnerships for
 habitat management, enhancement, restoration or creation; and
 - promote the conservation, restoration and enhancement of priority habitats, ecological networks and the
 protection and recovery of priority species; and identify and pursue opportunities for securing measurable net
 gains for biodiversity."
- A3.12. When determining planning applications, Paragraph 186 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:



- "if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse
 effect on it (either individually or in combination with other developments), should not normally be permitted.
 The only exception is where the benefits of the development in the location proposed clearly outweigh both its
 likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the
 national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient
 or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation
 strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while
 opportunities to improve biodiversity in and around developments should be integrated as part of their design,
 especially where this can secure measurable net gains for biodiversity or enhance public access to nature where
 this is appropriate."
- A3.13. As stated in paragraph 187 the following should be given the same protection as habitats sites:
 - "potential Special Protection Areas and possible Special Areas of Conservation;
 - listed or proposed Ramsar sites; and
 - sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites."
- A3.14. Paragraph 188 states that the presumption in favour of sustainable development does not apply where the planned project is likely to have a significant effect on a habitat site (alone or in combination with other plans or projects) unless an appropriate assessment has concluded the plan or project will not adversely affect the integrity of the habitats site.

Local Planning Policy

Cherwell Local Plan 2011 - 2031 Part I

A3.15. Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment states:

'Protection and enhancement of biodiversity and the natural environment will be achieved by the following:

- In considering proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources
- The protection of trees will be encouraged, with an aim to increase the number of trees in the District
- The reuse of soils will be sought



- If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then development will not be permitted.
- Development which would result in damage to or loss of a site of international value will be subject to the Habitats
 Regulations Assessment process and will not be permitted unless it can be demonstrated that there will be no
 likely significant effects on the international site or that effects can be mitigated
- Development which would result in damage to or loss of a site of biodiversity or geological value of national
 importance will not be permitted unless the benefits of the development clearly outweigh the harm it would cause
 to the site and the wider national network of SSSIs, and the loss can be mitigated to achieve a net gain in
 biodiversity/geodiversity
- Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principal importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity
- Development proposals will be expected to incorporate features to encourage biodiversity, and retain and where
 possible enhance existing features of nature conservation value within the site. Existing ecological networks should
 be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential
 component of green infrastructure provision in association with new development to ensure habitat connectivity
- Relevant habitat and species surveys and associated reports will be required to accompany planning applications
 which may affect a site, habitat or species of known or potential ecological value
- Air quality assessments will also be required for development proposals that would be likely to have a significantly adverse impact on biodiversity by generating an increase in air pollution
- Planning conditions/obligations will be used to secure net gains in biodiversity by helping to deliver Biodiversity
 Action Plan targets and/or meeting the aims of Conservation Target Areas. Developments for which these are the
 principal aims will be viewed favourably
- A monitoring and management plan will be required for biodiversity features on site to ensure their long term suitable management.'

A3.16. Policy ESD 11: Conservation Target Areas states:

'Where development is proposed within or adjacent to a Conservation Target Area biodiversity surveys and a report will be required to identify constraints and opportunities for biodiversity enhancement. Development which would prevent the aims of a Conservation Target Area being achieved will not be permitted. Where there is potential for development, the design and layout of the development, planning conditions or obligations will be used to secure biodiversity enhancement to help achieve the aims of the Conservation Target Area.'

A3.17. Policy ESD 17: Green Infrastructure states:

'The District's green infrastructure network will be maintained and enhanced through the following measures:



- Pursuing opportunities for joint working to maintain and improve the green infrastructure network, whilst protecting sites of importance for nature conservation.
- Protecting and enhancing existing sites and features forming part of the green infrastructure network and improving sustainable connectivity between sites in accordance with policies on supporting a modal shift in transport (Policy SLE 4: Improved Transport and Connections), open space, sport and recreation (Policy BSC 10: Open Space, Outdoor Sport and Recreation Provision), adapting to climate change (Policy ESD 1: Mitigating and Adapting to Climate Change), SuDS (Policy ESD 7: Sustainable Drainage Systems (SuDS)), biodiversity and the natural environment (Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment), Conservation Target Areas (Policy ESD 11: Conservation Target Areas), heritage assets (Policy ESD 15) and the Oxford Canal (Policy ESD 16).
- Ensuring that green infrastructure network considerations are integral to the planning of new development.
 Proposals should maximise the opportunity to maintain and extend green infrastructure links to form a multifunctional network of open space, providing opportunities for walking and cycling, and connecting the towns to the urban fringe and the wider countryside beyond.
- All strategic development sites (Section C: 'Policies for Cherwell's Places') will be required to incorporate green infrastructure provision and proposals should include details for future management and maintenance.'

Biodiversity Actions Plans

- A3.18. Oxfordshire Biodiversity Action Plan
- A3.19. Table A2.1 shows the habitats and species identified in the Oxfordshire BAP.

Table A2.1: Oxfordshire BAP Habitats and Species

Habitats		Species	
A3.20.	Lowland Meadows	A3.39.	Orange-fruited Elm-lichen
A3.21.	• Lowland Calcar	A3.40.	• Bluebell
	Grassland	A3.41.	• Lizard Orchid
A3.22.	Lowland Heathland	A3.42.	Military Orchid
A3.23.	 Lowland Meadows Floodplain Grazing 	A3.43.	Monkey Orchid
A3.24.	Marsh	A3.44.	Creeping Marshwort
A3.25.	• Fens	A3.45.	Broad-leaved Cudweed
A3.26.	• Eutrophic Standing Wat	A3.46.	Small Fleabane
A3.27.	Mesotrophic Lakes	A3.47.	• Green Hound's-tongue



A3.28.	• Ponds	A3.48	Perfoliate Penny-cress
A3.29.	• Reedbed	A3.49	• Early Gentian
A3.30.	• Rivers	A3.50	• Pennyroyal
A3.31.	Purple Moor Grass and I Pastures	A3.51	Meadow Clary
42.22		A3.52	Downy Woundwort
A3.32.	 Lowland Wood pasture parkland 		• Grass-poly
A3.33.	• Lowland Beech and	A3.54	• Rough Marsh-mallow
	Woodland	A3.55	• Plymouth Pear
A3.34.	 Lowland Mixed Decide Woodland 		• Field Cow-wheat
A3.35.	Wet Woodland	A3.57	• Fen Violet
A3.36.	Traditional Orchards	A3.58	• Roman Snail
A3.37.	Arable Field Margins	A3.59	Glutinous Snail
A3.38.	Hedgerows	A3.60	• Freshwater Crayfish
Open Mosaic Habitats		A3.61	Southern Damselfly
		A3.62	• Stag Beetle
		A3.63	• Silver-spotted Skipper
		A3.64	• Wood White
		A3.65	Brown Hairstreak
		A3.66	Black Hairstreak
		A3.67	• Small Blue
		A3.68	Silver-studded Blue
		A3.69	Chalk Hill Blue
		A3.70	• Adonis Blue
		A3.71	Duke of Burgundy
		A3.72	Purple Emperor



	A3.73.	• Pearl-bordered Fritillary
	A3.74.	• High Brown Fritillary
	A3.75.	• Large Heath
	A3.76.	Barberry Carpet
	A3.77.	• Palmate Newt
	A3.78.	• Smooth Newt
	A3.79.	Great Crested Newt
	A3.80.	Common Toad
	A3.81.	• Common Frog
	A3.82.	• Slow-worm
	A3.83.	• Common Lizard
	A3.84.	Grass Snake
	A3.85.	• Adder
	A3.86.	• Garganey
	A3.87.	Common Quail
• Great Bittern		
Red Kite		
	A3.88.	• Montagu's Harrier
	A3.89.	Northern Goshawk
	A3.90.	• Eurasian Hobby
	A3.91.	Peregrine Falcon
	A3.92.	• Stone-curlew
	A3.93.	• Little Plover
	A3.94.	• Barn Owl
	A3.95.	Common Kingfisher



A3.96. • Wood Lark

A3.97. • Black Redstart

A3.98. • Cetti's Warbler

A3.99. • Dartford Warbler

A3.100. • Firecrest

A3.101. • Common Crossbill

A3.102. • European Water Vole

A3.103. • Lesser Horseshoe Bat

A3.104. • Western Barbastelle

A3.105. • Daubenton's Bat

A3.106. • Whiskered Bat

A3.107. • Natterer's Bat

A3.108. • Lesser Noctule

A3.109. • Noctule Bat

A3.110. • Nathusius's Pipistrelle

A3.111. • Common Pipistrelle

A3.112. • Soprano Pipistrelle

A3.113. • Brown Long-eared Bat

A3.114. • Grey Long-eared Bat

A3.115. • European Otter

A3.116. • Eurasian Badger

A3.117. • Hazel Dormouse

• Serotine



Appendix 4: Methodology and Results

Data Search

- A4.1. A desk-based study was conducted whereby records of designated sites and records of protected and priority species were purchased and interrogated for the site and the surrounding landscape. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.
- A4.2. The following resources were consulted/contacted:
 - Multi-Agency Geographic Information for the countryside (MAGIC) website¹⁰;
 - Thames Valley Environmental Records Centre (TVERC)¹¹; (Data received on 08/03/2024);
 - Cherwell District Council website¹²;
 - Joint Nature Conservation Committee (JNCC) website¹³;
 - Natural England (NE) designated sites website¹⁴;
 - Ordnance Survey mapping; and
 - Google Maps, including aerial photography.
- A4.3. The following areas of search around the boundary of the site boundary were applied:
 - 2km for protected and priority species, national statutory designated and non-statutory sites; and
 - 10 km for European statutory sites.

'Extended' Phase I Habitat Survey and UKHabs

A4.4. An 'extended' Phase 1 survey was carried out on the 1st February 2024 by Mari Jones BSc MSc, a suitably experienced ecologist and qualifying member of CIEEM. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey¹⁵ and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group¹⁶.

¹⁶ Butcher, B., Carey, P., Edmons, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1



¹⁰ https://magic.defra.gov.uk/ [Accessed 18/03/2024]

¹¹ https://www.cherwell.gov.uk/info/9/planning-and-building [Accessed: Feb 2024]

¹² https://www.cherwell.gov.uk/info/9/planning-and-building [Accessed 18/03/2024]

¹³ http://jncc.defra.gov.uk/ProtectedSites/ [Accessed 18/03/2024]

¹⁴ https://designatedsites.naturalengland.org.uk/ [Accessed 18/03/2024]

¹⁵ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.

- A4.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.
- A4.6. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under the Defra Statutory Metric, which included confirming 'pass' / 'fail' criteria taken from the UK Habitat/Phase 1 methodology where necessary.

Preliminary Bat Roost Assessment (PBRA)

- A4.7. A PBRA was undertaken on trees of relevance to this assessment. The assessment was undertaken on the 1st February 2024 by Mari Jones alongside the Phase I Habitat Survey. All surveys were daytime inspections and the conditions for all surveys was considered optimal. All trees were inspected from the ground using binoculars and high-powered torch for accessible features. In relation to trees, such features may include woodpecker holes, frost cracks, deadwood, knot holes and limb wounds.
- A4.8. The potential of each tree at the site and immediately adjacent to the site to support roosting bats have been categorised against the criteria described in **Table A3.1**.

Table A3.1: Roost Assessment Criteria¹⁷

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for long periods of time due to their size, shelter, protection conditions and surrounding habitat.

A4.9. Results of the PBRA are shown in **Section 2** of this report.

¹⁷ Adapted from: Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. The Bat Conservation Trust, London



Biodiversity Net Gain

- A4.10. The Defra Statutory Biodiversity Metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) the 'unit' value associated with each habitat type is calculated based on the following parameters:
 - Size (in hectares)/Length (in km);
 - Distinctiveness (i.e. how rare/valuable a given habitat is);
 - Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat);
 and
 - Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).
- A4.11. When considering the creation of new habitats in the post-development site, other factors are also considered when calculating the 'unit' value of a given habitat and these are:
 - Time to reach the target condition of each habitat; and
 - Difficulty category for the creation of a given habitat.
- A4.12. A calculation has been undertaken using the baseline habitats identified during habitat condition assessment survey, which was carried out on the 1st February 2024, alongside the 'extended' Phase 1 survey above. All surveys were carried out by Mari Jones BSc MSc, a suitably experienced ecologist and qualifying member of CIEEM.
- A4.13. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into the Statutory Metric in hectares were rounded to two decimal places.

Evaluation

- A4.14. The evaluation of habitats and species is defined in accordance with published guidance¹⁸. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.
- A4.15. Consideration will also be given to legally protected or controlled species which are 'important features' in the context of this assessment, for which mitigation measures are required to ensure legal compliance, regardless of their geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.
- A4.16. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a

¹⁸ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.



good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

Impact Assessment

A4.17. The assessment of impacts identifies impacts and their effects as a result of the proposed development on important ecological features. This includes consideration of impacts at all relevant stages of the development, including construction and operation/occupation [include decommissioning and restoration, if relevant – it won't be for most projects]. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

Application of Mitigation Hierarchy

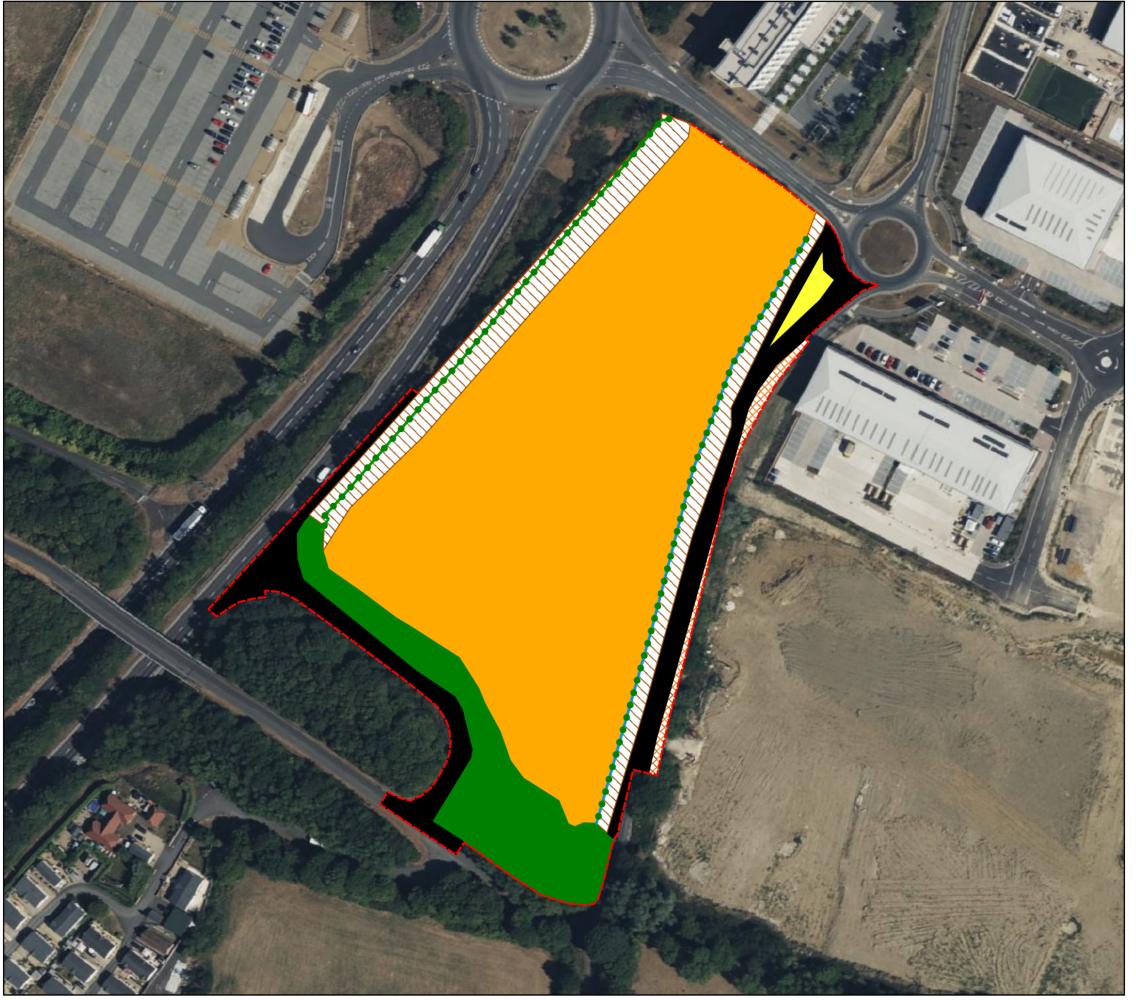
- A4.18. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:
 - Avoidance measures to avoid harm to ecological features (set out in 'Design Evolution', Section 3);
 - Mitigation measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
 - Compensation measures required to offset significant residual negative effects following avoidance and mitigation; and
 - Enhancement measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.



Plans:

Plan 1: Habitat Features 16582/P01





Bing Maps Copyright Tyler Grange Group Ltd

Legend

Baseline Habitats

Baseline Habitat Lines

••• Hedgerow with trees

••• Hedgerow with trees associated with ditch

Baseline Habitat Polygons

Site boundary

Hardstanding

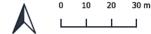
Other neutral grassland - offsite

Other neutral grassland - onsite

Modified grassland - offsite

Lowland mixed deciduous woodland

Ruderal / Ephemeral



Project | Catalyst Bicester

Drawing Title Habitat Features Plan

le As Shown (Approximate)

Drawing No. | 16582/P01

May 2024

Checked MJ/GS

Date



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