



Highgate School MSC 4Phase

Ecology Report

Produced for Highgate School

By Applied Ecology Ltd

May 2025

Document Control:

Version	Date	Version Details	Prepared by	Checked by	Approved by
1.0	01.07.2022	Draft final	RD	RJH	DP
2.0	08.11.2022	Final	RD	RJH	DP
3.0	16.01.2024	Final – BNG update	RD	RJH	DP
4.0	08.05.2025	Final – Revised layout	RD	RJH	DP

Prepared for: Highgate School
Title: Highgate School MSC 4Phase – Ecology Report
Project number: AEL0983
Document version: 4.0
Document status: Final
Document date: 8 May 2025

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1 Introduction

Background

- 1.1 In April 2022, Applied Ecology (AE) was commissioned to conduct a Preliminary Ecological Appraisal (PEA) of an area of land at Highgate School Mallinson Sports Centre, London (hereafter referred to as “the Site”). The survey was required to inform various proposals for redevelopment of parts of the Site (“the Development”). The proposed site plan for the Development is provided in **Appendix A** and the Site location is shown by **Figure 1.1**.
- 1.2 Part of the Site was subject to previous ecological survey by AEL in 2015¹ and 2019, and the 2022 survey was updated in June 2024 to confirm no significant changes to habitats or the potential to support protected species in the intervening period.
- 1.3 AE was also commissioned to complete Biodiversity Net Gain (Statutory Metric) and BREEAM assessments (BREEAM 2018 LE 02–LE 05) of the proposed Development, as well as to produce a Landscape Ecological Management Plan (LEMP) for the scheme.
- 1.4 This report presents the findings of a PEA completed by AE on 12 April 2022 and updated on 26 June 2024 in Chapter 2 and highlights any significant ecology constraints and opportunities relating to the proposed developments going forward. It provides a Biodiversity Net Gain assessment in Chapter 3, a BREEAM assessment in Chapter 4, and Chapter 5 provides the LEMP for the Development.

Legislation and Planning

Legislation

- 1.5 The Wildlife and Countryside Act 1981 (as amended) provides the main legal framework for nature conservation and species protection in the UK. The Site of Special Scientific Interest (SSSI) is the main statutory nature conservation designation in the UK. Such sites are notable for their plants, or animals, or habitats, their geology or landforms, or a combination of these. Natural England is the key statutory agency in England for advising Government, and for acting as the Government’s agent in the delivery of statutory nature conservation designations.
- 1.6 Designation of a SSSI is a legal process, by which sites are notified under the Wildlife and Countryside Act 1981. The 1981 Act makes provision for the protection of sites from the effects of changes in land management, and owners and occupiers receive formal notification specifying why the land is of special scientific interest and listing any operations likely to damage the special interest.
- 1.7 The Countryside and Rights of Way Act 2000, and The Natural Environment and Rural Communities (NERC) Act 2006, provide supplementary protected species legislation.

¹ Applied Ecology Ltd (2015) *Highgate School – Mallinson Sports Centre Project – Ecology Report*. Unpublished report to Highgate School, January 2015.



Specific protection for badgers *Meles meles* is provided by the Protection of Badgers Act 1992.

Habitats and Species of Principal Importance in England

- 1.8 The Natural Environment and Rural Communities (NERC) Act came into force on 1 October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act.
- 1.9 The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Habitats of Principal Importance

- 1.10 Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and sub-tidal sands and gravels.

Species of Principal Importance

- 1.11 There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the hen harrier *Circus cyaneus* has also been included on the list because without continued conservation action it is unlikely that the hen harrier population will increase from its current very low levels in England.
- 1.12 In accordance with Section 41(4) the Secretary of State will, in consultation with Natural England, keep this list under review and will publish a revised list if necessary.

National Planning Policy Framework

- 1.13 The National Planning Policy Framework (NPPF) was first published in March 2012 (and replaced previous planning policy guidance (PPS 9) on biodiversity). The latest revision was published in December 2024, with paragraphs 193–195 stating the following in relation to habitats and biodiversity:

“193. When determining planning applications, local planning authorities should apply the following principles:

- a) 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;*



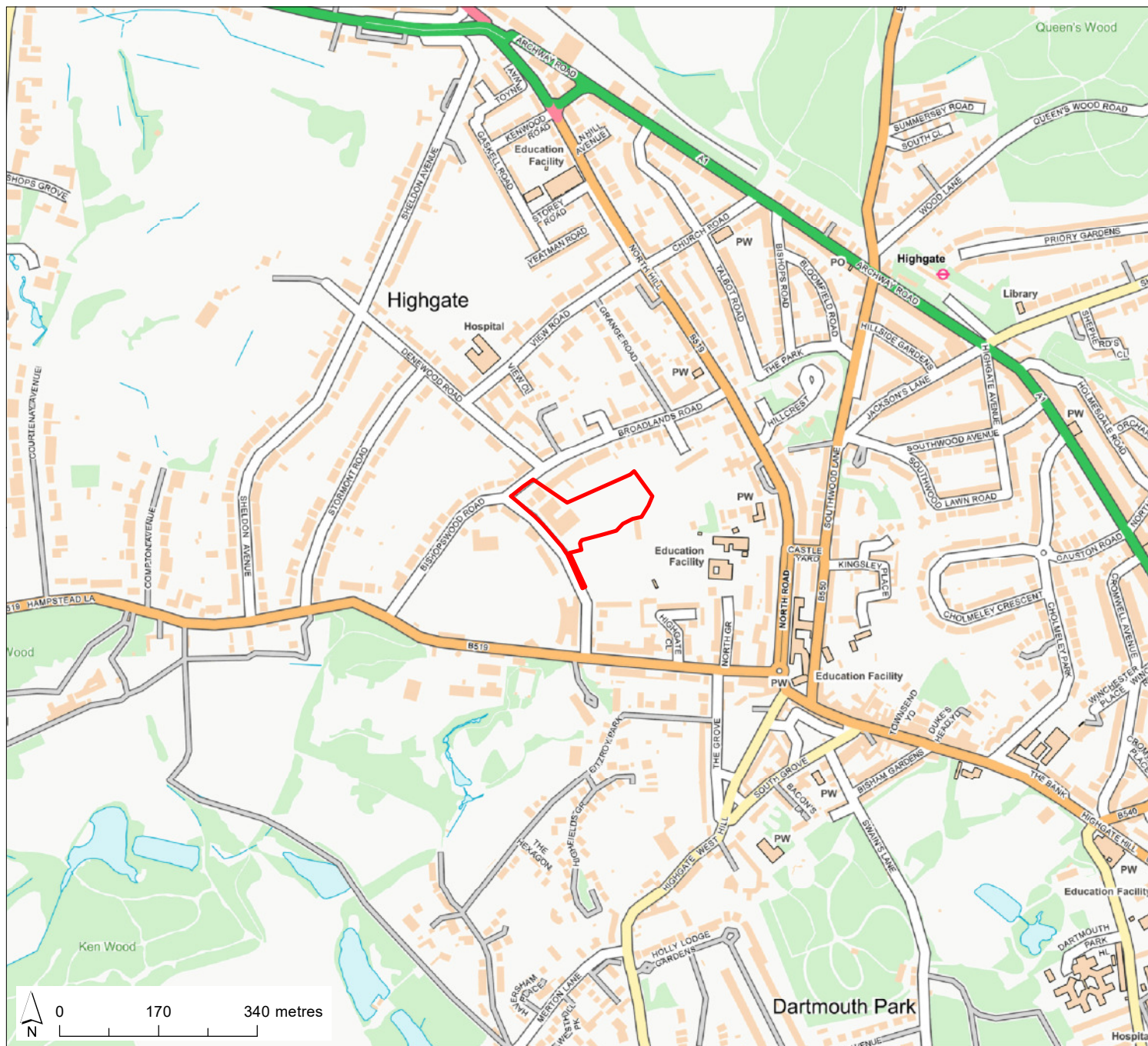
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location 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;*
- c) 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*
- d) 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.*

194. The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites; and*
- c) 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.*

195. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site”.





Highgate School MSC 4Phase

Site location

 Site boundary

Figure 1.1

Map Scale @ A4: 1:10,000

Surveyed by: n/a

Survey date: n/a

Drawn by: RD

Checked by: DP

Status: Final



2 Preliminary Ecological Appraisal

Methodology

Existing Biological Records

- 2.1 Greenspace Information for Greater London (GIGL) were commissioned by AEL to complete a records search within a 1 km buffer around the central point of the Site.

Habitats and Plants

- 2.2 An extended Phase 1 habitat survey was undertaken for the Site on 12 April 2022 by AEL ecologist Richard Dale MCIEEM² in dry and bright conditions. The methodology adopted followed the standard JNCC approach to Phase 1 habitat survey (JNCC, 1993³) by which all habitats present within the site were classified and mapped according to standard categories. Target notes were used to describe areas of both typical and unique botanical character. Habitat patches were mapped as polygon features, and if sufficient space on the map linear features (such as walls and fences) as lines where this provided added value. Point features were recorded where there were notable isolated trees or scrub. Plant species abundance was noted using the DAFOR⁴ system.
- 2.3 The habitat map was subsequently digitised using a Geographical Information System (ArcGIS Pro).
- 2.4 The survey was completed within the accepted season for completing Phase 1 habitat survey (which runs from late March until mid-October in southern England).
- 2.5 Update surveys, to check for any significant changes in habitat type or condition, were made by RD on 30 November 2023 and 26 June 2024.

Fauna

- 2.6 The standard Phase 1 habitat survey was “extended” to include a search for evidence of or potential for the presence of protected animal species or species of nature conservation interest within and close to the Site. This was not a detailed survey for such species but included noting the presence of habitats suitable to support specific protected species, and where seen, any evidence of presence such as droppings, mammal tracks and footprints, shelters (or nests/roosts), hair caught on fence-wire, foraging signs, and so on.

Preliminary Bat Roost Assessment

- 2.7 An external preliminary bat roost assessment survey of the on-Site buildings was completed by RD as part of the walkover survey on 12 April 2022 and updated on the subsequent visits on 30 November 2023 and 26 June 2024.

² Level 4 Botanical Society of Britain and Ireland (BSBI) Field Identification Skills Certificate.

³ JNCC (1993) *Handbook for Phase 1 Habitat Survey – A technique for Environmental Audit*. JNCC, Peterborough.

⁴ DAFOR: whereby species occurrence may be classified as being dominant, abundant, frequent, occasional or rare. Rare in the context of a DAFOR score should not be confused with species rarity in the more widely accepted meaning of general scarcity.



- 2.8 The inspection of buildings to assess their suitability for and roosting use by bats can be conducted at any time of year, according to the best practice survey guidance (Collins (2016)⁵ for the original survey, and Collins (2023)⁶ for the most recent update survey). However, finding evidence of bats (e.g., their droppings) on external surfaces that are unprotected from rainfall may be restricted if undertaken outside the main bat active season (May to September) and/or after periods of wet weather. Bat droppings inside buildings may also quickly disintegrate in damp conditions.
- 2.9 A systematic, ground-level survey of the exterior of the on-Site buildings was completed, in line with Collins (2016 & 2023), using binoculars and torches (Exposure 800, 875 and 1300 lumen models) as necessary and as possible, to search for evidence of bats.
- 2.10 Evidence of bats would include bat droppings on floors, walls and other exposed surfaces, staining (caused by bat fur oils and/or urine spots), the characteristic odour of accumulated bat droppings in confined (typically poorly ventilated) spaces, bat insect feeding remains (such as discarded moth/butterfly wings and spider exoskeletons), and live/dead bats (e.g. roosting against ridge beams and/or in cracks and crevices in brickwork and structural timbers).
- 2.11 A full inspection of all trees on-Site was beyond the scope of the initial survey; however, notes were made of any trees with obvious bat roost features.
- 2.12 The February 2023 survey focussed on two trees scheduled for removal, and a further three potentially to be impacted by trench works. These were inspected from ground level with binoculars.
- 2.13 The suitability of buildings and trees within the Site for roosting bats were classified according to the categories and descriptions defined by Collins (2023) as summarised in **Tables 2.1** and **2.2**, respectively.

Table 2.1: Guidelines for assessing the potential suitability of roosting habitats in structures.

Potential suitability	Description of roosting habitat
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/ underground levels).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of year. 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 number of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).
Moderate	A structure with one or more potential roost sites that could be used bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).

⁵ Collins, J. (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines – 3rd Edition*. Bat Conservation Trust, London.

⁶ Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*. The Bat Conservation Trust, London



Potential suitability	Description of roosting habitat
High	A structure 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 longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation roosts, e.g. maternity or classic cool/stable hibernation site.

Table 2.2: Guidelines for assessing the potential suitability of trees for bats and categorisation of Potential Roost Features (PRFs).

Suitability	Description
None	Either no Potential Roost Features (PRFs) in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree (e.g. tree climbing, MEWP inspection)
PRF	A tree with at least one PRF present
- PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats
- PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony

Survey Findings

Existing Biological Records

Designated Wildlife Sites

- 2.14 The Site itself carries no statutory or non-statutory wildlife designation. A single nationally important statutory wildlife site is located within the 1 km buffer search area, namely **Hampstead Heath Woods Site of Special Scientific Interest (SSSI)** which is located 640 m to the south-west of the Site. A single locally important statutory site, **Parkland Walk Local Nature Reserve (LNR)**, is also located within the search area, 735 m north-east of the Site (see **Figure 2.1**).
- 2.15 A number of non-statutory Sites of Importance for Nature Conservation (SINC) occur within 1 km of the Site. Three are located within 500 m as follows:
- **Hampstead Heath SINC (M072)** (site of Metropolitan Importance) located 225 m to the south-west.
 - **Highgate Cemetery SINC (M088)** (site of Metropolitan Importance) located 350 m to the north.
 - **Highgate Golf Course SINC (HgBII08)** (site of Borough Grade II importance) located 460 m to the north-west.
- 2.16 A number of other non-statutory SINC occur at least partly within the search area (but beyond 500 m from the Site), including Parkland Walk, Queen's Wood and Highgate Wood SINC (Metropolitan), Waterlow Park SINC (Borough Grade I), Holly Lodge Gardens SINC (Local), Harrington Site, Southwood Lane Wood and Yeatman Road Allotments SINC (Local).

Protected and notable Species

- 2.17 A wide range of records of protected species and species of conservation concern were provided by GIGL. The majority of the records, including those of higher plants, birds and invertebrates, relate to areas with known ecological importance such as Hampstead Heath



and Highgate Wood, and are not considered relevant to the Site given the lack of suitable habitat.

2.18 The GIGL records can be summarised as follows:

- A range of notable higher plants (21 species in total), mainly associated with woodland, and damp heathland and grassland habitats such as lemon-scented fern *Oreopteris limbosperma*, snake's-head fritillary *Fritillaria meleagris* and round-leaved mint *Mentha suaveolens*.
- A wide range of invertebrates (44 species in total), mainly beetles (including stag beetle *Lucanus cervus*) and moths recorded from Highgate Wood.
- Records of three amphibian and one reptile species, namely common toad *Bufo bufo* (closest record 544 m to the south-west in 1998), palmate newt *Lissotriton helveticus* (266 m to the north in 2007), common frog *Rana temporaria* (67 m to the west in 1999) and common lizard *Zootoca vivipara* (580 m to the north in 2001–02).
- A range of birds (31 species in total), including rapidly declining species such as nightingale *Luscinia megarhynchos* (last recorded in 1986), spotted flycatcher *Muscicapa striata* (last recorded 2009) and lesser spotted woodpecker *Dendrocopos minor* (last recorded 2011) with all records appearing to coincide with designated wildlife sites. The closest record of house sparrow *Passer domestica* (a more widely distributed species of urban areas) was 574 m to the north of the Site in 2003.
- Records of hedgehog *Erinaceus europaeus* with the closest 266 m to the north in 2007.
- A range of bat records (all appearing to be non-roosting records), mainly associated with woodland areas, including common pipistrelle *Pipistrellus pipistrellus*, Nathusius's pipistrelle *P. nathusii*, Soprano pipistrelle *P. pygmaeus*, serotine *Eptesicus serotinus*, Daubenton's bat *Myotis daubentonii*, Natterer's bat *M. nattereri*, Leisler's bat *Nyctalus leisleri*, noctule *N. noctula* and brown long-eared bat *Plecotus auritus*.

Habitats and Plants

- 2.19 The Phase 1 habitat map is provided in **Figure 2.2**. A summary of the habitats recorded is provided in **Table 2.3** below, and a selection of habitat survey photographs can be found in **Figure 2.3**. Full species lists are provided in **Appendix B**, where necessary.

Table 2.3: Summary of habitat types recorded on the Site.

Habitat	Area (ha)	% of Site
Amenity grassland	0.824	48.7
Broad-leaved plantation woodland	0.374	22.2
Buildings	0.268	15.9
Hard-standing	0.196	11.6
Poor semi-improved neutral grassland	0.027	1.6

- 2.20 In summary, the Site consisted of a school sports centre, with a number of buildings adjacent to amenity grassland playing fields. Other habitats on-Site included small areas of broad-leaved plantation woodland, hedgerows and ditches. No significant changes to these habitats had occurred by the time of the update Site visit in November 2023.



Amenity grassland

- 2.21 The east of the Site was dominated by short-sward, regularly mown amenity grassland. Grasses were dominated by perennial rye-grass *Lolium perenne*, with Yorkshire-fog *Holcus lanatus* and rough meadow-grass *Poa trivialis*. Forb species included white clover *Trifolium repens*, creeping buttercup *Ranunculus repens* and greater plantain *Plantago major*.

Poor semi-improved neutral grassland

- 2.22 A small area of unmanaged grassland, heavily invaded by scattered bramble *Rubus fruticosus* and sycamore *Acer pseudoplatanus* scrub, was present on the edge of the woodland block. This was dominated by Yorkshire-fog, with cock's-foot *Dactylis glomerata* and rough meadow-grass. Forbs included broad-leaved dock *Rumex obtusifolius* and great willowherb *Epilobium hirsutum*.

Broad-leaved plantation woodland

- 2.23 A stand of broad-leaved plantation woodland was present within the Site. This was dominated by sycamore, with ash *Fraxinus excelsior*, silver birch *Betula pendula* and pedunculate oak *Quercus robur*, and understorey species including holly *Ilex aquifolium*, yew *Taxus baccata* and bramble. The ground layer was sparse with the exception of abundant ivy *Hedera helix* in places. It was both heavily shaded and subject to disturbance through recreational use and dumping of gardening waste.

Hedges and other trees

- 2.24 A species-rich hedgerow with trees formed the southern boundary of the woodland and one of the playing fields, running parallel to a dry ditch. This comprised hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, pedunculate oak, yew, holly, ivy and bramble.
- 2.25 A short line of trees was present between the sports centre buildings and the playing field, comprising sycamore trees with some sparse hawthorn and holly. A very large, veteran pedunculate oak tree was present at the south-eastern end of the line of trees.
- 2.26 Along the Site's eastern and northern boundaries various trees were present in short lines and groups. These included pedunculate oak, ash, sycamore, wild cherry *Prunus avium*, common lime *Tilia x europaea* and broad-leaved lime *Tilia platyphyllos*.

Ditches

- 2.27 Dry, shallow drainage ditches were present alongside the hedgerows and line of trees surrounding the playing field.

Buildings and other habitats

- 2.28 Three buildings were present within the Site boundary, comprising the school sports centre, including indoor sports and Eton fives courts.
- 2.29 The remainder of the Site was made up of areas of hard-standing, including various paths, as well as associated artificial grass paths.

Fauna

- 2.30 A range of common garden and woodland bird species were recorded during the various surveys. These included great spotted woodpecker *Dendrocopos major*, goldcrest *Regulus*



regulus, nuthatch *Sitta europaea* and blackbird *Turdus merula*. The only species of elevated conservation concern⁷ recorded was the Amber-listed dunnock *Prunella modularis*, which remains a common breeding species, particularly in gardens.

- 2.31 With the exception of the above listed bird species, no evidence of protected animals was recorded during the walkover surveys. In particular no evidence of badger in the form of their setts or other signs of their activity was seen, and no habitat potentially suitable for reptiles was present.
- 2.32 On the basis of the habitats present and existing species records, it is conceivable that the Site could support hedgehog and stag beetle, and while specific surveys to confirm the presence / absence of these species are not considered necessary, appropriate measures should be adopted during site clearance and construction in order to avoid / minimise impact risk.
- 2.33 The stand of plantation woodland within the Site is likely to provide a foraging resource for small numbers of common bat species, and the lines of trees may provide commuting routes for bats. The Study Area was assessed as being of **Low** value for commuting and foraging bats in line with best practice guidance (Collins (2016)).

Preliminary bat roost appraisal

- 2.34 The three buildings at the Site were surveyed as part of the preliminary bat roost assessment. These are shown in **Figure 2.4**, with photographs provided in **Figure 2.3**, and are discussed in turn in below.

Building 1

- 2.35 A squash court of concrete construction with pebble-dashed exterior, an upper section of corrugated aluminium sheet cladding and a sloping roof. No features of use to roosting bats were present, and the building was assessed as being of **Negligible** value to roosting bats.

Building 2

- 2.36 Eton Fives courts, consisting of an open-fronted brick and concrete structure with a single-pitched glass roof. No features of use to roosting bats were present, and the building was assessed as being of **Negligible** value to roosting bats.

Building 3

- 2.37 Main sports centre building, comprising a pair of linked main buildings with various flat-roofed extensions.
- 2.38 The building was of brick construction, and the southern, swimming pool buildings had extensive metal cladding on and around a sloping roof, while the main northern building had a flat, unlined corrugated metal roof. The building was in an excellent state of repair and lacked any obvious gaps, cracks or crevices around cladding, in brickwork or associated with the roof structures. No evidence of bats was present, and the building was assessed to be of **Negligible** bat roost potential.

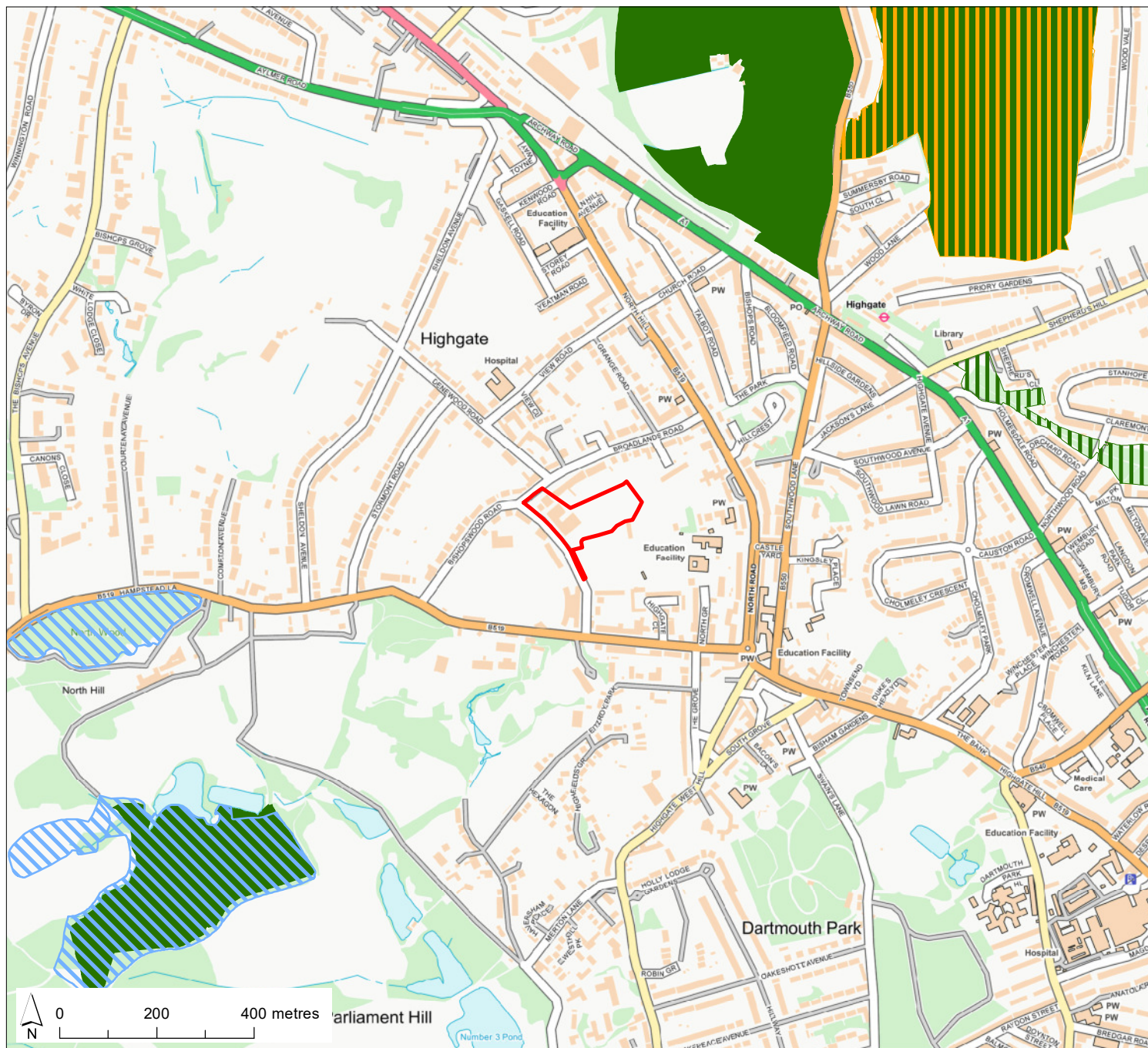
⁷Stanbury, A.; Eaton, M. A.; Aebischer, N. J.; Balmer, D.; Brown, A.; Douse, A.; Lindley, P.; McCulloch, N.; Noble, D. and Win, I. (2021). *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds **114**, 723–747.



Trees

- 2.39 An area of the western part of the woodland is proposed to be impacted by the creation of a drainage basin (see **Figure 2.4**); however, the trees in this part of the woodland were all relatively young secondary growth (mostly sycamore and silver birch). None of the trees to be impacted supported features of value to roosting bats, all being assessed as negligible value in this respect.





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Designated sites and ancient woodland

- Site boundary
- Hampstead Heath Woods SSSI
- Parkland Walk LNR
- Queen's Wood LNR
- ancient semi-natural woodland

Figure 2.1

Map Scale @ A4: 1:12,000

Surveyed by: n/a

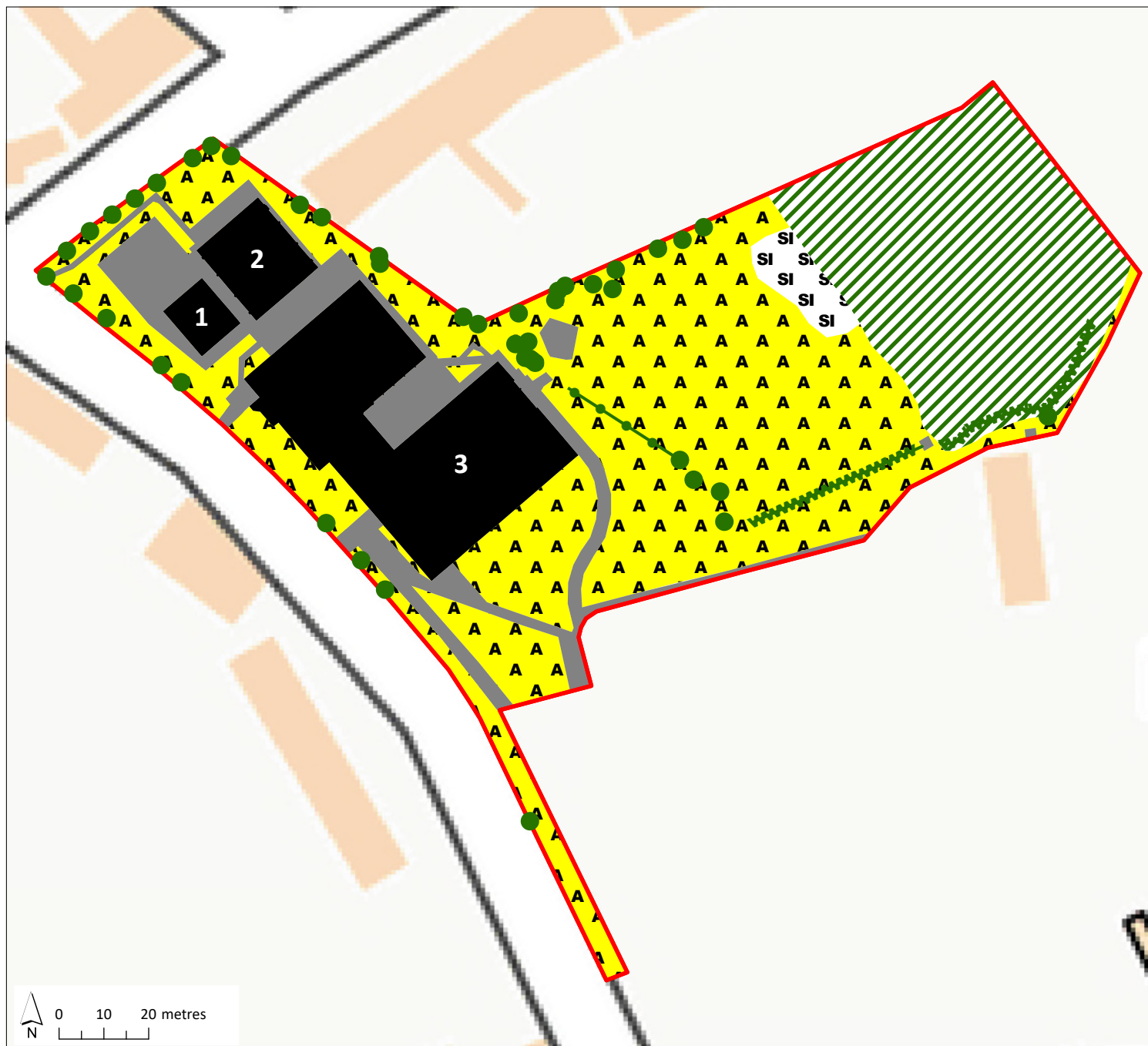
Survey date: n/a

Drawn by: RD

Checked by: DP

Status: Final





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Phase 1 habitat map

- Site boundary
- A Amenity grassland
- Broad-leaved plantation woodland
- Buildings
- Hard-standing
- SI Poor semi-improved neutral grassland
- Line of trees
- Species-rich hedge with trees
- Individual trees

Figure 2.2

Map Scale @ A4: 1:1,300

Surveyed by: RD

Survey date: 26 June 2025

Drawn by: RD

Checked by: DP

Status: Final

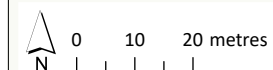


Figure 2.3: Selection of habitat survey photographs.



(a) Amenity grassland playing fields and line of trees.



(b) Hard-standing, amenity grassland and sports centre buildings.



(c) Small area of poor semi-improved neutral grassland with scattered bramble scrub at edge of broad-leaved plantation woodland.



(d) Broad-leaved plantation woodland.



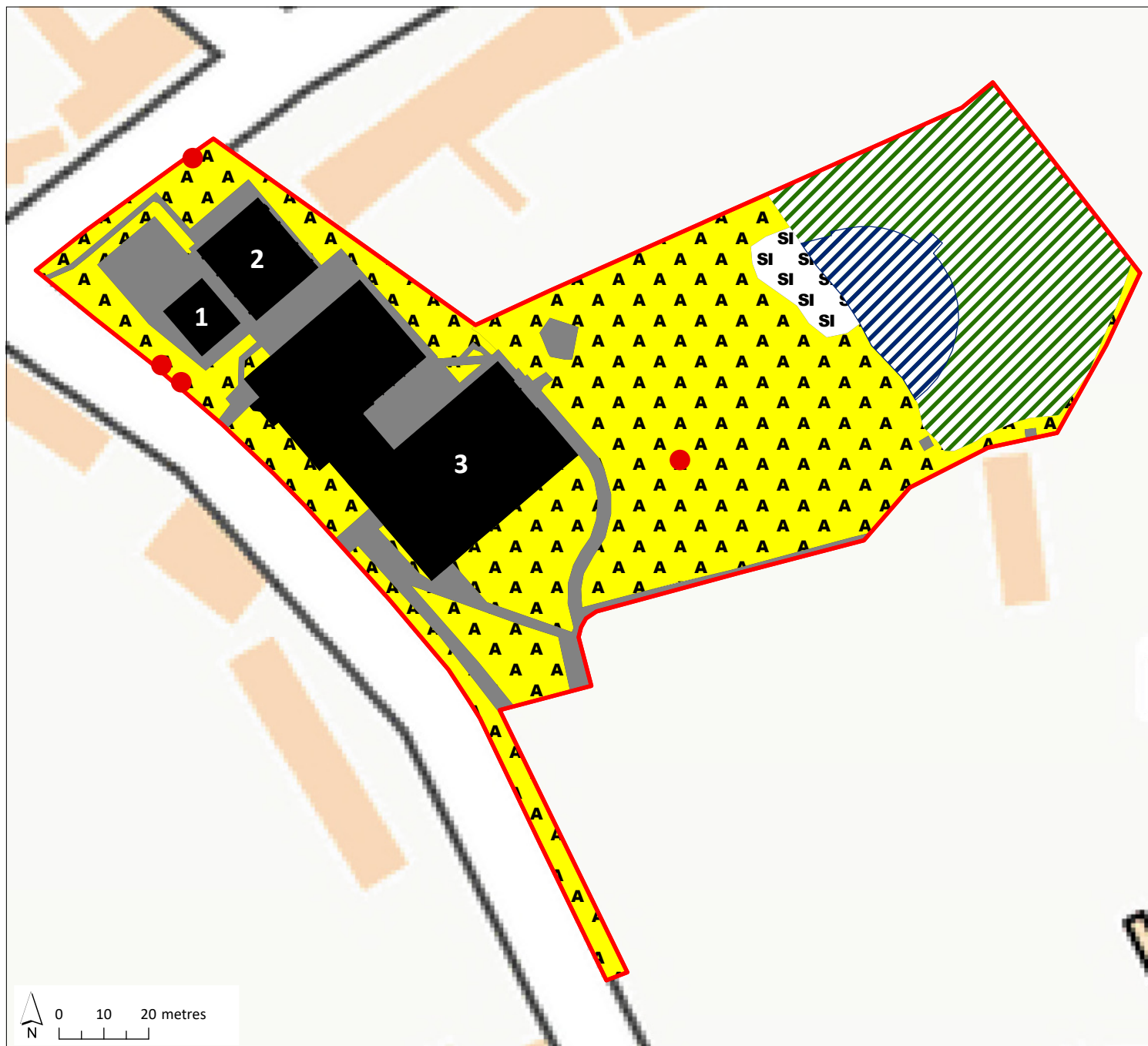


(e) Buildings 1 and 2, squash court (right) and Eton fives courts.



(f) Northern part of Building 3.





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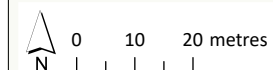
Preliminary bat roost assessment

- Site boundary
- Buildings subject to PBRA
- Area of woodland trees subject to PBRA
- Individual trees subject to PBRA

Figure 2.4

Map Scale @ A4: 1:1,300

Surveyed by: RD
Survey date: 26 June 2025
Drawn by: RD
Checked by: DP
Status: Final



Conclusions and Recommendations

Conclusions

Protected sites

- 2.40 No impacts on statutory or non-statutory wildlife sites are anticipated as a consequence of the proposed development given the distance between the designated sites and the Site, and the scale and type of development being proposed.

Habitats

- 2.41 The Site was dominated by amenity grassland, buildings and hard-standing, all habitats of negligible ecological and biodiversity value that do not represent a significant development constraint.
- 2.42 The woodland, hedgerows and mature and semi-mature trees were of elevated ecological value and should be retained and protected where possible.

Fauna

- 2.43 The Site is likely to support a breeding assemblage of mostly common garden and woodland birds, primarily in the areas of woodland.
- 2.44 None of the buildings within the Site were assessed as being of value to roosting bats, and the woodland area and lines of trees were assessed as being of low value to commuting and foraging bats.
- 2.45 The presence of hedgehog and stag beetle cannot be discounted, and although specific survey to confirm their presence / absence is not considered necessary in this instance it is recommended that consideration is given to avoid impacts on these species by adopting reasonable impact avoidance measures during Site clearance and construction, and targeted enhancement measures provided as part of the proposals.

Recommendations

Further survey

- 2.46 Although the proposed Development will result in small losses to the stand of woodland, the integrity of the woodland block will not be affected. Furthermore, the nearby hedgerows and lines of trees will be retained, and the woodland is proposed to be enhanced through thinning and additional planting, with additional tree planting planned to surround the new flood basin and no additional after dark lighting proposed in these areas. It is therefore considered that the scheme is unlikely to negatively affect foraging or commuting bats and may have an overall net benefit for bats. As such, no further bat survey is recommended.

Site Clearance, Development Design and Biodiversity Enhancement

- 2.47 The following general recommendations should be considered as part of development planning and design to comply with National Planning Policy Framework (NPPF) guidance:



- Development-related habitat loss should be minimised where possible, with retained habitats and features to be protected from damage and excessive disturbance during construction.
- Any clearance of trees or vegetation necessary to enable development should be conducted outside of the bird breeding season (i.e., during the period September–February) or, if during the breeding season, immediately after a check by an experienced ornithologist that verifies nesting bird absence from the Site.
- Any areas of shrubs, dense litter or log piles should be searched and/or removed carefully by hand prior to Site clearance.
- Additional after-dark lighting, particularly of woodland habitats, should be minimised to reduce potential adverse impacts on nocturnal wildlife.
- Any Development-related habitat loss should be compensated through new habitat creation and species-specific enhancements, such as integrated bird and bat boxes on new buildings.



3 Biodiversity Net Gain Assessment

Approach

- 3.1 The biodiversity impact of the proposed development has been assessed using the Statutory Biodiversity Metric calculation tool⁸, which compares the relative biodiversity value of the habitats before and after development. The Metric assesses the impact on linear habitat features (such as hedgerows and ditches), and rivers independently. The full Statutory Biodiversity Metric calculator is provided as a separate Excel spreadsheet.
- 3.2 The pre-development habitat baseline for the Site was derived using the habitat map presented in Chapter 2, with the Phase 1 habitat types converted into their respective UK Habitat Classification (UKHab) habitat types using professional judgement.
- 3.3 The post-development habitat types and areas for use in the biodiversity metric calculator, were informed by the Development Layout Plan in **Appendix A** and the Landscape Strategy Report⁹. Habitat management recommendations to achieve the targeted post-intervention conditions are provided in Chapter 5.
- 3.4 The condition of pre-development habitats and target conditions of post-development created habitats were determined in line with the Statutory Biodiversity Condition Assessment criteria (see **Appendix C**).
- 3.5 The woodland scored 23 points on the woodland condition assessment criteria and was therefore assigned poor condition (poor condition = 13–25 points).
- 3.6 Individual trees have been assigned to a size class based on the following criteria and entered into the Metric using the in-built tree calculation tool (trees within hedge are excluded unless at least medium sized and proposed to be lost to enable development):
 - Small >7.5–≤30 cm DBH (small trees in hedgerows are excluded from the assessment);
 - Medium >30–≤60 cm DBH;
 - Large >60–≤90 cm DBH;
 - Very large >90 cm DBH.
- 3.7 A single very large ancient/veteran pedunculate oak tree was present, and this is flagged as irreplaceable habitat and therefore excluded from the calculations.

Baseline Habitats

- 3.8 The habitat areas and their assessed conditions are detailed in **Table 3.1** and shown in **Figure 3.1**. Overall, the baseline habitat value of the Site was calculated at **12.96 habitat units**.
- 3.9 The Site also had a baseline value of **1.68 hedgerow units**. The baseline value of the hedgerows present is provided in **Table 3.2**.

⁸ Available from [Statutory biodiversity metric tools and guides - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides) Accessed on 08/05/2025.

⁹ Robert Myers Associates (2025) *Highgate School MSC 4Phase Landscape Strategy Report – 733.01 (RP) 001 Rev F*.



Table 3.1: Baseline habitat value.

Habitat (Phase 1)	Habitat (UKHab)	Condition	Area (ha)	Habitat unit value
Poor semi-improved neutral grassland	Grassland: Modified grassland	Moderate	0.027	0.11
Amenity grassland	Grassland: Modified grassland	Poor	0.824	1.65
Buildings and hard-standing	Urban: Developed land, sealed surface	N/A	0.464	0
Broad-leaved plantation woodland	Woodland and forest: Other woodland, broadleaved	Poor	0.374	1.50
Individual trees	Individual trees: Urban tree (one very large ancient/veteran oak – irreplaceable habitat excluded from calculation)	Good	0.077	n/a
Individual trees	Individual trees: Urban tree (one very large, ten large, eight medium)	Good	0.378	4.54
Individual trees	Individual trees: Urban tree (six large, 13 medium, five small)	Moderate	0.647	5.18

Table 3.2: Baseline hedgerow value.

Habitat (Phase 1)	Habitat (UKHab)	Condition	Length (km)	Hedgerow unit value
Species-rich hedge with trees	Native species-rich hedgerow with trees – associated with bank or ditch	Moderate	0.048	0.77
Species-rich hedge with trees	Native species-rich hedgerow with trees – associated with bank or ditch	Moderate	0.041	0.66
Line of trees	Line of trees (ecologically valuable) – associated with bank or ditch	Moderate	0.028	0.22

Post-intervention Habitats

3.10 The post-development habitats, including the proposed area of developed land (buildings and hard-standing) and other newly created habitats within the Site, are presented in **Tables 3.3 and 3.4** and shown in **Figure 3.2**.

3.11 The habitats shown are based on those detailed in the Landscape Strategy Report. The assumptions made are as follows:

- The woodland will be enhanced from poor to moderate condition through selective felling (to focus on sycamore and trees in poor health), planting of a range of suitable native species, sowing of Emorsgate Woodland Mixture EW1 to enhance the ground layer, restricted recreational use and removal/cessation of dumping of gardening waste.
- The area surrounding the amphitheatre to be seeded with Emorsgate Woodland Mixture EW1 and, in the absence of a directly comparable habitat within the Metric, has been entered as *Grassland: Other neutral grassland* to capture its likely value and species diversity. It is assumed it will be managed as a shaded meadow sward and



potentially achieve moderate condition – however, it has been assessed conservatively by targeting only poor condition in this calculation.

- The green roof is proposed as a mix of sedum and low native wildflower plugs and as such is conservatively assessed here as the relatively low value habitat *Urban: Other green roof* (rather than the higher value but more challenging to create and maintain *Urban: Biodiverse green roof*).
- A total of 28 new small trees (trees likely to attain a DBH of <30 cm in 30 years) has been included using the in-built urban tree calculator tool.
- The condition one of the retained hedgerows and the retained line of trees is considered likely to increase from moderate to good condition by virtue of improvements to the ground layer resulting from the shaded meadow grassland creation described above.

3.12 Overall, the post-intervention habitats score a post-development value of **14.65 habitat units** and **1.85 hedgerow units**.

Table 3.3: Post-intervention habitats.

Habitats (UKHab)	Target condition	Area (ha)	Habitat units value
Retained habitats			
Grassland: Modified grassland	Poor	0.084	0.17
Individual trees: Urban tree (one very large ancient/veteran oak – irreplaceable habitat excluded from calculation)	Good	0.077	n/a
Individual trees: Urban tree	Good	0.341	4.09
Individual trees: Urban tree	Moderate	0.590	4.72
Enhanced habitats			
Woodland and forest: Other woodland, broadleaved	Moderate	0.299	2.03
New habitats			
Grassland: Modified grassland	Poor	0.277	0.53
Grassland: Other neutral grassland	Poor	0.192	0.72
Urban: Developed land, sealed surface	N/A	0.583	0
Urban: Introduced shrub	N/A	0.185	0.36
Urban: Other green roof	N/A	0.070	0.14
Urban: Urban trees (38x new small trees)	Moderate	0.619	1.89

Table 3.4: Post-intervention hedgerows.

Habitats (UKHab)	Target condition	Area (ha)	Habitat units value
Retained hedgerows			
Species-rich native hedgerow, associated with bank or ditch	Moderate	0.041	0.49
Enhanced hedgerows			
Ecologically valuable line of trees, associated with bank or ditch	Good	0.028	0.30
Species-rich native hedgerow, associated with bank or ditch	Good	0.041	1.06



Conclusion

- 3.13 Based on the above assumptions, the proposed Development delivers at on-site **net gain of +1.68 habitat units, equivalent to a net gain of +12.99%** in addition to an on-site **net gain of +0.56 hedgerow units, equivalent to a net gain of +43.38%**.





Highgate School MSC 4Phase

Baseline habitats

- Site boundary
- Grassland: Modified grassland, moderate
- Grassland: Modified grassland, poor
- Woodland and forest: Other woodland, broadleaved, poor
- Urban: Developed land; sealed surface, n/a
- Individual tree (very large), good (veteran)
- Individual tree (very large), good
- Individual tree (large), good
- Individual tree (large), moderate
- Individual tree (medium), good
- Individual tree (medium), moderate
- Individual tree (small), moderate
- Line of trees with ditch, moderate
- www Native species-rich hedge trees with ditch, moderate

Figure 3.1

Map Scale @ A4: 1:1,300

Surveyed by: RD
Survey date: 26 June 2025
Drawn by: RD
Checked by: DP
Status: Final





Highgate School MSC 4Phase

Post-intervention habitats

- Site boundary
- Grassland: Modified grassland, poor (retained)
- Grassland: Modified grassland, poor (new)
- Grassland: Other neutral grassland, moderate (new)
- Urban: Developed land; sealed surface, n/a (new)
- Urban: Introduced shrub, n/a (new)
- Urban: Other green roof, moderate (new)
- Woodland and forest: Other woodland, broadleaved, moderate (enhanced)
- Line of trees, associated with bank or ditch, good (enhanced)
- ww Species-rich native hedgerow with trees, associated with bank or ditch, good (enhanced)
- ww Species-rich native hedgerow with trees, associated with bank or ditch, moderate (retained)
- Very large (veteran), good (retained)
- Very large, good (retained)
- Individual tree (large), good (retained)
- Individual tree (large), moderate (retained)
- Individual tree (medium), good, (retained)
- Individual tree (medium), moderate (retained)
- Individual tree (small), moderate (retained)
- Individual tree (small), moderate (new)

Figure 3.2

Map Scale @ A4: 1:1,300

Surveyed by: n/a

Survey date: n/a

Drawn by: RD

Checked by: DP

Status: Final



4 BREEAM 2018 Assessment

Background

- 4.1 The baseline habitat conditions and recommendations to protect and enhance ecology in line with national and local planning policy were provided by the Preliminary Ecological Appraisal detailed in Chapter 2 of this report.
- 4.2 This report provides a BREEAM assessment of the development following the BREEAM UK New Construction, Non-Domestic Buildings (United Kingdom), Technical Manual SD5078: BREEAM UK New Construction 2018 3.0, and covers Land Use and Ecology LE 01 – LE 05.
- 4.3 The change in ecological value calculations used in LE 04 are as reported in the Biodiversity Net Gain assessment in Chapter 3 of this report.
- 4.4 The assessment was completed by AEL senior ecologist Richard Dale MCIEEM and verified by Rob Hutchinson MCIEEM, a Suitably Qualified Ecologist (SQE) as defined by BREEAM.

Assessment

- 4.5 The subsequent assessment and guidance follow the BREEAM New Construction, Non-Domestic Buildings (United Kingdom) Technical Manual SD5078 – 2018, and cover Land Use and Ecology LE 02–LE 05. The LE 02–LE 05 criteria are outlined in the section below along with guidance on whether the development will meet each criterion, and a summary of the BREEAM credits that can be awarded. The assessment was completed in July 2022.
- 4.6 The pre-development baseline habitats are shown in **Figure 2.2** and **3.1** and the post-development habitats are shown by **Figure 3.2** and in **Appendix A**. The recommendations in Chapter 2 and Landscape Ecological Management Plan in Chapter 5 also inform this assessment.

LE 01 Site Selection

- 4.7 Up to two credits are available under LE 01, there is no prerequisite and no exemplary credits are available.

Previously occupied land (1 credit)

Criterion 1

- 4.8 *“At least 75% of the proposed development is on previously occupied land”*
- 4.9 Only approximately 50% of the Site qualifies as previously developed land as defined by BREEAM, as such the Site does not qualify for this credit. The relevant definition of previously development land excludes: *“land in built-up areas such as parks, recreation grounds and allotments which, although they may feature paths, pavilions and other buildings, have not been previously occupied.”* As such the playing fields and amenity areas, as well as the woodland, does not fit the definition of previously developed land.



Contaminated land

Criterion 2

- 4.10 *“A contaminated land professional undertakes a site investigation, risk assessment and appraisal which deems that land within the development footprint to be affected by contamination. This report identifies:*

2.a: The degree of contamination.

2.b: The contamination sources or types.

2.c: The options for remediating sources of contamination which present an unacceptable risk.”

Criterion 3

- 4.11 *“The client of principal contractor confirms that a remediation strategy will be implemented, in line with the report.”*
- 4.12 The Site does not constitute contaminated land and therefore the scheme does not qualify for this credit.

LE 02 Ecological Risks and Opportunities

- 4.13 In addition to a prerequisite, this route is split into two parts. One credit can be awarded for each of these. A further exemplary credit can also be awarded.

Prerequisite – statutory obligations

Criterion 1

- 4.14 *“The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site”*
- 4.15 The ecological survey work undertaken on the Site and recommendations in Chapter 2 of this report have ensured that the proposed development will be compliant with all relevant UK and EU/international legislation relating to ecology.

Survey and evaluation (1 credit)

Criterion 3

- 4.16 *“A Suitably Qualified Ecologist (SQE) carries out a survey and evaluation (see Methodology) for the site early enough to influence site preparation works, layout and, where necessary, strategic planning decisions (typically Preparation and brief stage) (see Definitions).”*
- 4.17 Robert Hutchinson MCIEEM, an SQE, has verified the findings and conclusions of this report. The information from the PEA has been used to inform mitigation requirements and biodiversity enhancements. In addition to the PEA reported in Chapter 2, AEL has previously completed PEAs of the Site in 2015 and 2019, providing ongoing ecological advice throughout the design process.

Criterion 4

- 4.18 *“The SQE’s survey and evaluation determines the site’s ecological baseline (see Definitions), including:*



4.a: Current and potential ecological value and condition of the site and related areas within the Zone of Influence.

4.b: Direct and indirect risks to current ecological value from the project.

4.c: Capacity and feasibility for enhancement of the site's ecological value and, where relevant, areas within the Zone of Influence."

- 4.19 The PEA report summarised the relevant baseline ecological data for the Site and identified its key ecological features (primarily the woodland block and associated mature trees and hedges). It outlined the likely risks of development and put forward relevant mitigation measures to reduce/remove these risks. Ecological enhancements have been considered throughout the process via a Biodiversity Net Gain assessment which has informed the development and landscaping design.

Criterion 5

- 4.20 *"Recommendations and data collected from the survey and evaluation are shared with appropriate project team members to influence decisions made for activities during site preparation, design and construction works, which can support ecological features (see Methodology and Definitions)."*
- 4.21 Survey and evaluation data, including preliminary biodiversity net gain assessments, have been shared with project team members and these have been used to inform production of the landscape design proposal, including the enhancement of retained woodland, native wildflower planting and green roofs.
- 4.22 As all three criteria have been met **one credit** can be awarded.

Determining ecological outcomes (1 credit)

Criterion 6

- 4.23 *"Survey and evaluation criteria relevant to the chosen route (Criterion 2 if following the Foundation route or Criteria 3–5 for the Comprehensive route)."*
- 4.24 This criterion can be met as Criteria 3–5 have all been met.

Criterion 7

- 4.25 *"The project team liaise and collaborate with representative stakeholders (see Methodology) early enough to influence key planning decisions (typically Concept Design stage), to:*

7.a: Identify the optimal ecological outcomes for the site.

7.b: Identify, appraise and select measures to meet the optimal ecological outcomes for the site (criterion 7.a), in line with the mitigation hierarchy of action, according to the route being used (see Definitions):"

The mitigation hierarchy used for the comprehensive route is as follows:

1. *Avoidance*
2. *Protection*
3. *Reduction or limitation of negative impacts*
4. *On-site compensation*



5. *Enhancement, considering the capacity and feasibility within the site, or where viable, off-site.*

- 4.26 Formal Consultation with relevant ecological stakeholders (such as local government and NGOs such as the Wildlife Trusts and the Bat Conservation Trust) is considered necessary under BREEAM 2018 only for projects that are large or that may impact sensitive areas. Smaller-scale projects are not required to formally engage with these organisations if they incorporate decisions which comply with or exceed local and national policy on biodiversity.
- 4.27 The development meets and exceeds relevant national policy in regard to its impacts on ecology. For example, overall, the development will result in a net gain for biodiversity, which relevant national policy (the NPPF) states should be a requirement of development. This has been demonstrated by the Biodiversity Net Gain assessment detailed in Chapter 3.
- 4.28 The mitigation hierarchy has been followed throughout the project design and mitigation process.
- 4.29 Because both criteria have been met **one credit** can be awarded.

Exemplary level criteria – wider site sustainability (1 exemplary credit)

Criterion 8

- 4.30 *“Achieve criterion 7”*
- 4.31 This criterion has been achieved.

Criterion 9

- 4.32 *“Wider sustainability related activities and potential ecosystem service benefits (see Definitions) are considered as part of determining the optimal ecological outcomes for the site (criterion 7), including the areas outlined in the Methodology.”*
- 4.33 The ecosystem services benefits of the habitats on Site (e.g., in terms of providing habitat for pollinators and providing recreation and amenity value for the school) have been considered throughout the design process.

Criterion 10

“10.a: Hea 07 Safe and healthy surroundings – Both credits

10.b: Pol 03 Flood and surface water management – Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution'

10.c: Pol 05 Reduction of noise pollution”

- 4.34 It is not known at this stage if these credits will be achieved by the scheme and as such this credit is not currently available.

LE 03 Managing Impacts on Ecology

- 4.35 LE 03 is split into two parts with a total of three credits available for the comprehensive route. There is a prerequisite but no exemplary credits.



Prerequisite – ecological risks and opportunities

Criterion 1

- 4.36 *“LE 02's 'Survey and evaluation and determining ecological outcomes' criteria have been achieved using the Foundation route (Route 1) or the Comprehensive route (Route 2).”*
- 4.37 All of the LE 02 criteria have been achieved using Route 2.

Planning and measures on-site (1 credit)

Criterion 2

- 4.38 *“Further planning to avoid and manage negative ecological impacts on-site is carried out (see Methodology) early enough to influence the concept design and design brief as well as site preparation planning (typically Concept Design stage).”*
- 4.39 Potential negative ecological impacts were identified during the initial PEA survey, which identified the potential of trees, hedges and woodland to support nesting birds, as well as the biodiversity value of these habitats and their function as part of the wider ecological network. Subsequently, the retention and protection, where possible, of these habitats and enhancement through improved management and supplementary tree planting was adopted as part of the landscape design.

Criterion 3

- 4.40 *“On-site measures for managing negative ecological impacts during site preparation and construction are implemented in-practice (e.g., mitigation measures to protect existing ecological features) (see Methodology).”*
- 4.41 Following the PEA, the recommendations for the protection of potential bird nesting habitat during the breeding season and minimising after dark lighting will be adopted during Site preparation and construction.

Criterion 4

- 4.42 *“Criteria 2–3 are based on input from the project team in collaboration with representative stakeholders and data collated as part of the ‘Determining ecological outcomes’ in LE 02 Ecological risks and opportunities (see Methodology).”*
- 4.43 The aforementioned mitigation strategy was completed based on data collected from the initial surveys and followed the mitigation hierarchy. Due to scale of the development, ecological stakeholders do not need to be formally consulted as long as decisions comply with or exceed recommendations provided by local or national policy or guidance produced by conservation NGOs.
- 4.44 As all three criteria have been met and **one credit** can be awarded.

Managing negative impacts (up to 2 credits)

Criterion 7

- 4.45 *“Criteria 2–4 have been achieved.”*
- 4.46 Criteria 2–4 have all been achieved.



Criterion 8

- 4.47 *“Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations (see Methodology) and, either:*

8.a: No overall loss of (see Definitions) ecological value has occurred (two credits).

OR when 8.a is not possible:

8.b: The loss of ecological value has been minimised (Minimising Loss) (one credit).”

- 4.48 Potential impacts on nesting birds will be avoided by following the timing recommendations made in the PEA report and no overall loss of the ecological value of the habitats on Site has occurred (see LE 04 section).

- 4.49 As a result, **one credit** can be awarded.

LE 04 Ecological Change and Enhancement

Prerequisite – managing negative impacts on ecology

- 4.50 Up to four credits are available for LE 04, which is split into two parts when following the Comprehensive route (in addition to a prerequisite).

Criterion 1

- 4.51 *“Criterion 6 (for Foundation route) or 8 (for Comprehensive route) in LE 03 has been achieved”*

- 4.52 Criterion 8 has been achieved using the Comprehensive route for LE 03.

Criterion 2

- 4.53 *“The client or contractor confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.”*

- 4.54 The ecological work undertaken on the Site has ensured that the proposed development will be compliant with all relevant UK and EU/international legislation relating to ecology.

Ecological enhancement (1 credit)

Criterion 4

- 4.55 *“Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the ‘Determining ecological outcomes’ in LE 02 (see Methodology). Measures are implemented in the following order:*

4.a: On site, and where this is not feasible,

4.b: Off site within the Zone of Influence.”

- 4.56 Measures to enhance the ecological value of the Site have been implemented, see section on biodiversity net gain assessment in Chapter 3.

Criterion 5

“Data collated are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.”



- 4.57 No relevant data were provided to the local environmental records centre as part of the PEA due to the limited ecological value of the habitats at the Site and lack of protected species surveys.
- 4.58 The relevant criteria have been met, and **one credit** can be awarded.

Change and enhancement of ecology (up to 3 credits)

Criterion 6

- 4.59 *“Up to three credits are awarded based on the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in GN36 – BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2. Credits are awarded in line with the Reward Scale table in GN36 where there are no residual impacts on protected sites or irreplaceable habitats.”*
- 4.60 The change in ecological development on the Site as a result of development has been calculated using the Defra Metric 3.1 as detailed in Chapter 3, rather than using the GN36 method.
- 4.61 The calculation shows post intervention gain of +12.99% and therefore a post-development area-based biodiversity unit value of 112.99% of the pre-development baseline. It therefore achieves **three credits** for achieving a net gain for the habitats assessed.

Exemplary level criteria (one credit)

Criterion 7

- 4.62 *“The change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.”*
- 4.63 The scheme achieves **one exemplary credit** for achieving a significant net gain (a post-development value of over 110%).

LE 05 Long Term Ecology Management and Maintenance

Prerequisite – statutory obligations, planning and site implementation

Criterion 1

- 4.64 *“The client or contractor has confirmed that compliance is being monitored against all relevant UK, EU and international standards relating to the ecology of the site.”*
- 4.65 Based on the recommendations in the PEA the client has confirmed that the development will be compliant with all relevant UK and EU/international legislation relating to ecology.

Criterion 2

- 4.66 *“The following must be achieved, according to the route being assessed:*
- 2.a: Foundation route (Route 1) - Criterion 6 in LE 03 has been achieved.*
- 2.b: Comprehensive route (Route 2) - Criterion 8 in LE 03 has been achieved, and at least one credit under LE 04 for 'Change and Enhancement of Ecology' has been awarded.”*
- 4.67 Criterion 8 in LE 03 has been achieved and four LE 04 'Change and Enhancement of Ecology' credits can also be awarded.



Management and maintenance throughout the project (1 credit)*Criterion 3*

- 4.68 *“Measures have been implemented to manage and maintain ecology throughout the project. These measures are based on input from the project team in collaboration with representative stakeholders and data collated as part of the ‘Determining ecological outcomes’ in LE 02 (see Methodology). To ensure the optimal ecological outcomes agreed in LE 02 are met in-practice, these measures must monitor and review the effectiveness of the mitigation and enhancement measures in place for LE 03 & LE 04 to ensure they are implemented.”*
- 4.69 Prescribed measures to monitor and review the effectiveness of mitigation and enhancement measures are provided in the Landscape Ecological Management Plan in Chapter 5 of this report. **One credit** is therefore awarded.

Landscape and Ecology Management Plan (1 credit)*Criterion 5*

- 4.70 *“A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.11 covering at least the first five years after project completion as a minimum and including:*
- 5.a: Actions and responsibilities of relevant individuals prior to handover*
 - 5.b: The ecological value and condition of the site at handover and how this is expected to develop and change over time*
 - 5.c: Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework*
 - 5.d: Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts*
 - 5.e: Clearly defined and allocated roles and responsibilities for delivering the plan”*
- 4.71 The Landscape Ecological Management Plan is provided in Chapter 5 of this report. **One credit** can be awarded.



Summary

- 4.72 A summary of the BREEAM assessment for LE 01 – LE 05 is provided in **Table 4.1** below. The table indicates the credits available to the current scheme for each subsection of LE 02 – LE 05, providing all necessary conditions continue to be met.

Table 4.1: Summary of BREEAM LE 02 – LE 05 credits awardable.

Issues	Criteria	Total credits available	Credits achieved	Potential additional credits achievable
LE 01 Site selection	Previously occupied land	1	0	0
	Contaminated land	1	0	0
LE 02 Identifying and understanding the risks and opportunities for the project	Survey and evaluation	1	1	0
	Determining the ecological outcomes for the Site	1	1	0
	Exemplary level criteria	1	0	1
LE 03 Managing negative impacts on ecology	Planning, liaison, implementation and data	1	1	0
	Managing negative impacts of project	2	2	0
LE 04 Change and enhancement of ecological value	Ecological enhancement	1	1	0
	Change and enhancement of ecology	3	3	0
	Exemplary level criteria	1	1	0
LE 05 Long-term ecology management and maintenance	Planning, liaison, data, monitoring and review management and maintenance	1	1	0
	Landscape and ecology management plan (or similar) development	1	1	0
Total credits awardable =			12	1

- 4.73 A total of **12 credits** can be awarded at this stage, with a possible additional credit available depending on meeting the exemplary credit conditions for LE 02.



5 Landscape Ecological Management Plan

Aims and Objectives

- 5.1 The purpose of this document is to set out the proposed biodiversity enhancements measures proposed by the Development to ensure that, once implemented, the landscape is managed and maintained to a high standard. It will ensure the significant landscape and ecological enhancements proposed as part of the Development are maintained and continue to contribute positively for the long term. In particular, management prescriptions will ensure the habitat types and conditions targeted in the Biodiversity Net Gain (BNG) assessment in **Chapter 3** of this report are achieved.
- 5.2 The Landscape Ecological Management Plan (LEMP) will contain the following:
- 5.3 *a) Description and evaluation of features to be managed.*
- 5.4 *b) Aims and objectives of management, including how a positive outcome in biodiversity enhancement will be achieved.*
- 5.5 *c) Appropriate management options for achieving aims and objectives.*
- 5.6 *d) Prescriptions for management actions.*
- 5.7 *e) Prescription of a work schedule (including an annual work plan capable of being rolled forward over a five-year period).*
- 5.8 *f) Details of the body or organisation responsible for implementation of the plan.*
- 5.9 *g) Ongoing monitoring and remedial measures.*

Features to be Managed

- 5.10 The features of ecological importance to be managed under the terms of the LEMP reflect the post-intervention habitats for the Site (see **Chapter 3**) and are listed below. Amenity grassland and introduced shrub beds are excluded from the LEMP as these are low distinctiveness habitats only targeting the minimum 'poor' condition which are not expected to be managed for the benefit of biodiversity.
- 5.11 The area of green roof (*Urban: Other green roof*) has been assessed as a low distinctiveness habitat type without condition assessment criteria and therefore does not require a condition assessment.
- 5.12 Although the woodland wildflowers and grasses (*Grassland: Other neutral grassland*) is targeting poor condition in the metric, it is envisaged that management should target at least moderate condition if possible, and management is likely to be necessary to ensure the habitat persists as a diverse, medium distinctiveness grassland, rather than the less diverse, lower distinctiveness *Grassland: Modified grassland*.
- Retained/enhanced woodland (*Woodland and forest: Other woodland, broadleaved* in moderate condition).
 - Woodland wildflowers and grasses (*Grassland: Other neutral grassland* in poor condition – management to target at least moderate condition).



- Individual trees (*Individual trees: Urban trees in moderate condition*).
- Retained/enhanced line of trees (*Ecologically valuable line of trees, associated with bank or ditch in good condition*).
- Retained/enhanced hedgerow (*Species-rich native hedgerow, associated with bank or ditch in good and moderate condition*).

5.13 Precise details of seed mixes to be used and tree species to be planted are provided in the Landscape Strategy Report. The initial establishment phase for each habitat should be provided in detail by the landscape architect and is not covered here.

Ecological Trends and Constraints

5.14 The following ecological trends and constraints are likely to influence future management of the Site:

Ecological trend

- The ongoing growth of existing and planted vegetation once established – notably the existing woodland and newly planted trees in common spaces which will necessitate overhanging vegetation across paths and access routes to be periodically cut back to maintain access for health and safety reasons.

Ecological constraint

- The presence of legally protected wildlife – namely nesting birds and their dependent young within the Site between March and August.

Aims and Objectives of Management

- 5.15 Management of the habitats at the Site is aimed at delivering the best possible landscape and wildlife value by achieving the habitat types and conditions set out in the BNG assessment. The habitats should be maintained at the minimum target conditions set out in the BNG assessment for at least 30 years following creation.
- 5.16 The relevant condition assessment criteria for each habitat are as follows:

Woodland and forest: Other woodland, broadleaved

Woodland condition assessment criteria

- 5.17 This condition sheet is based on the England Woodland Biodiversity Group (EWMG) Woodland Condition Survey Method¹⁰.

¹⁰ <https://woodlandwildlifetoolkit.sylva.org.uk/assess> Accessed 08/05/2025.



Table 5.1: Woodland condition assessment criteria.

<i>Indicator</i>	<i>Good (3 points)</i>	<i>Moderate (2 points)</i>	<i>Poor (1 point)</i>
<i>A. Age distribution of trees.</i>	<i>Three age classes present.</i>	<i>Two age classes present.</i>	<i>One age class present</i>
<i>B. Wild, domestic and feral herbivore damage.</i>	<i>No significant browsing damage evident in woodland.</i>	<i>Evidence of significant browsing pressure is present in 40% or less of whole woodland.</i>	<i>Evidence of significant browsing pressure is present in 40% or more of whole woodland</i>
<i>C. Invasive plant species.</i>	<i>No invasive species present in woodland.</i>	<i>Rhododendron or laurel not present, other invasive species < 10% cover.</i>	<i>Rhododendron or laurel present, or other invasive species > 10% cover.</i>
<i>D. Number of native tree species.</i>	<i>Five or more native tree or shrub species found across woodland parcel.</i>	<i>Three to four native tree or shrub species found across woodland parcel.</i>	<i>None to two native tree or shrub species across woodland parcel.</i>
<i>E. Cover of native tree and shrub species.</i>	<i>> 80% of canopy trees and >80% of understory shrubs are native.</i>	<i>50–80% of canopy trees and 50–80% of understory shrubs are native.</i>	<i>< 50% of canopy trees and <50% of understory shrubs are native.</i>
<i>F. Open space within woodland.</i>	<i>10–20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply.</i>	<i>21–40% of woodland has areas of temporary open space.</i>	<i>More than 40% of woodland has areas of temporary open space.</i>
<i>G. Woodland regeneration.</i>	<i>All three classes present in woodland; trees 4–7 cm DBH, saplings and seedlings or advanced coppice regrowth.</i>	<i>One or two classes only present in woodland.</i>	<i>No classes or coppice regrowth present in woodland.</i>
<i>H. Tree health.</i>	<i>Tree mortality less than 10%, no pests or diseases and no crown dieback.</i>	<i>11% to 25% mortality and/or crown dieback or low risk pest or disease present.</i>	<i>Greater than 25% tree mortality and or any high-risk pest or disease present.</i>
<i>I. Vegetation and ground flora.</i>	<i>Ancient woodland flora indicators present.</i>	<i>Recognisable NVC plant community present</i>	<i>No recognisable NVC community</i>
<i>J. Woodland vertical structure.</i>	<i>Three or more storeys across all survey plots or a complex woodland.</i>	<i>Two storeys across all survey plots.</i>	<i>One or less storey across all survey plots.</i>
<i>K. Veteran trees.</i>	<i>Two or more veteran trees per hectare.</i>	<i>One veteran tree per hectare.</i>	<i>No veteran trees present in woodland.</i>
<i>L. Amount of deadwood.</i>	<i>50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps.</i>	<i>Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps.</i>	<i>Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps.</i>
<i>M. Woodland disturbance.</i>	<i>No nutrient enrichment or damaged ground evident.</i>	<i>Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground.</i>	<i>More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground.</i>

5.18 In order to achieve moderate condition, the woodland must achieve between 26–32 points after ten years following enhancement (the woodland was assessed as scoring 23 points in the baseline assessment).



Grassland: Other neutral grassland

5.19 The habitat should target at least three of the following four criteria to ensure the required medium distinctiveness grassland habitat type is achieved:

- >20% cover of broadleaved herbs and sedges;
- >8 species per m² (including forbs, grasses, sedges and rushes, and excluding bryophytes)
- ≥1 grass species that is not generally sown for intensive agricultural production (i.e., rye-grasses *Lolium* spp., timothy *Phleum pratense*, cock's-foot *Dactylis glomerata*, meadow fescue *Festuca pratensis*) is at least abundant.
- Cover of rye-grasses *Lolium* spp. and white clover *Trifolium repens*, where present, is <30%.

Medium distinctiveness grassland condition assessment criteria

- A. There are 6–8 vascular plant species per m² present, including at least two forbs. Note - this criterion is essential for achieving Moderate or Good condition.
- B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
- C. Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present.
- D. Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities
- E. Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).
- F. There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).

5.20 Management should target all six criteria if possible. In order to achieve moderate condition at least three of the above criteria, including essential criterion #1 must be met – but note that the BNG assessment only requires poor condition to be achieved to deliver the net gain calculated.

Individual trees: Urban tree

Urban tree condition assessment criteria

- A. The tree is a native species (or more than 70% within the block are native species).
- B. The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).
- C. The tree is mature (or more than 50% within the block are mature).
- D. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no



current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.

E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.

F. More than 20% of the tree canopy area is oversailing vegetation beneath.

- 5.21 In order to achieve moderate condition at least three of the above criteria must be met after 27 years following creation and maintained subsequently.

Management Recommendations and Prescriptions

- 5.22 In order to meet the aims and objectives outlined above, the following management recommendations are made and should be adopted by the landscape maintenance contractor:

Woodland and forest: Other woodland, broadleaved

- 5.23 Initial felling of predominantly non-native tree species (mostly sycamore) and supplementary planting with native species is proposed which will result in uplifts for assessment criteria D, E and I. Management should focus on reducing recreational use of the woodland and damaging management such as the dumping of garden waste to target uplifts in assessment criteria G, I and M.
- Regular checks for non-native invasive species should be made and where present these should be removed. In particular, existing cherry laurel *Prunus laurocerasus* should be removed from the woodland wherever possible;
 - Recreational access to some or all of the woodland should be restricted to allow the establishment of an appropriate ground layer and regeneration of trees;
 - Piles of garden waste and other waste should be removed and further dumping within the woodland should be prevented;
 - Periodic coppicing of understorey species, particularly hazel *Corylus avellana*, should be carried out in order to promote a varied structure within the woodland. Coppicing should occur on a 7–15-year rotation, and no more than 25% of the woodland should be subject to coppicing in any one year.
 - Coppicing should occur outside of the bird nesting season, ideally during the period December–February, inclusive.
 - Coppicing produces large volumes of arisings. Some, where possible, should be stacked on Site to provide deadwood habitat and shelter; the remainder will need to be removed from Site or burnt.

Grassland: Other neutral grassland

- 5.24 With suitable management all six criteria could be achievable, although the impacts of recreational pressure from school children is likely to preclude achieving good condition:
- Once established grassland should be subject to wildflower meadow management. It should not be cut from early spring through to late-July/August to give the species present an opportunity to flower. After flowering, in mid-July or August a cut back with a tractor mower or similar to c.50 mm should be completed with the cuttings left to dry



and shed seed for 1–7 days before being removed from the Site. An early spring cut should be avoided as many woodland and shade tolerant species flower early in the year.

- Regular checks for species indicative of sub-optimal condition (such as creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, cow parsley *Anthriscus sylvestris*) should be made and, if coverage of these species is >5%, these should be manually removed or spot-treated with herbicide.
- Recreational use should be prevented where possible.

Urban: Other green roof

5.25 In general, a green roof should require little management largely due to the exposed, stressed, low nutrient, shallow substrates and root barriers that also slow the process of ecological succession. Ideally a biodiverse green roof should receive two maintenance visits per year by a suitably qualified contractor. Habitat management will depend on the range of habitat types established but is likely to include:

- Cut back taller flowering species to approximately 150 mm above substrate surface in autumn/winter after seeding;
- Re-establishment of any bare ground areas colonised by unwanted vegetation;
- Regular checks for invasive non-native species, particularly butterfly-bush *Buddleja davidii*, should be made and if present these should be manually removed or spot-treated with herbicide;
- Species with large growth habits or aggressive root systems should also be removed where found, these include docks *Rumex* spp., thistles, dandelion *Taraxacum officinale* agg., etc.

Individual trees: Urban tree

5.26 Once established, trees should need minimal management. Pruning and removal of deadwood should be avoided where possible to allow natural growth to occur and microhabitats for wildlife to establish.

Lines of trees and hedgerows

5.27 No specific management prescriptions are considered necessary for these retained habitats other than to maintain their current extent and condition. The habitat condition uplift for the enhanced habitats is to be achieved via seeding of adjacent ground layer habitats with a species-rich wildflower mix and appropriate management detailed above.

5.28 Management of the trees and hedgerows themselves should target maintenance of the current extent and condition of these habitats:

- Replacing dead or damaged individuals where necessary;
- Avoiding excessive pruning or removal of deadwood where possible.



Management Responsibility

- 5.29 The maintenance of the Site will be the responsibility of the Head Gardener at the School.

Monitoring and Remedial Measures

- 5.30 Monitoring of the habitats listed above should take place at the following intervals following Development completion: 2, 5, 10, 15, 20, 25 and 30 years.
- 5.31 Monitoring visits should be completed by a suitably qualified ecologist during the accepted Phase 1 habitat survey period (late-March to mid-October in Southern England), and assessments of the condition of the relevant habitats should be made with reference to the above condition assessment criteria. Where habitats are failing to meet the required criteria for their specified target condition, appropriate management action should be identified by the ecologist and incorporated into the management programme for the next five-year cycle. In particular, monitoring visits would be required to identify undesirable or invasive species for targeted removal.
- 5.32 Following each monitoring visit a short report should be submitted, detailing the condition of the habitats inspected, including specific condition criteria met and failed, and recommendations of changes to the management prescriptions to allow the habitats to continue to meet the long-term condition objectives.

Annual Work Plan

Action	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Targeted removal of non-native species in woodland												
Coppicing of woodland understorey (on 7–15-year rotation)												
Wildflower grassland mowing												
Cutting back tall vegetation on green roof												
Monitoring visits (every five years)												



Appendix A

Proposed Site Plan





NOTES

DO NOT SCALE FROM THIS DRAWING

Contractors, sub-contractors and suppliers are to verify any critical dimensions on site prior to commencing work, fabrication or construction of any elements.

Any discrepancies or errors must be brought to the attention of Robert Myers Associates.

All structural elements are shown indicatively. For all elements of structure, refer to structural engineers' and specialist sub-contractor/fabricators' design, detail and specification. The drawings are to be read in conjunction with all relevant landscape architect, consultant and specialist drawings.

KEY

-  Existing trees
-  Proposed trees
-  Existing trees to be removed
-  Timber seating

PURPOSE OF ISSUE

Rev.	Date:	Drawing Status:
P5	01.11.24	FOR INFORMATION
P6	21.01.25	FOR INFORMATION
P6	03.04.25	FOR PLANNING

REVISIONS

Rev.	Date:	Description:
P5	01.11.24	Update to amphitheatre
P6	21.01.25	Update to ground floor
P6	03.04.25	Update to ground floor

Highgate School

Client:	Highgate School		
Drawing:	Landscape Masterplan		
Project No:	733-01		
Drawing No:	733-01(MP)001		
Scale:	1:500 @ A3	Rev:	P6
Date:	November 2024	Drawn:	FR
Checked:	JB	PM Checked:	RM

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DO NOT SCALE FROM THIS DRAWING
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Landscape Masterplan

Scale 1:1000 @ A3



Appendix B

Plant Species Lists



Notes: DAFOR: D = dominant, A = abundant, F = frequent, O = occasional, R = rare, (LA = locally abundant).

Broad-leaved plantation woodland.

Species	DAFOR
Sycamore <i>Acer pseudoplatanus</i>	D
Pedunculate oak <i>Quercus robur</i>	F
Hazel <i>Corylus avellana</i>	F
Bramble <i>Rubus fruticosus</i>	F
Ivy <i>Hedera helix</i>	F
Ash <i>Fraxinus excelsior</i>	O
Willow <i>Salix</i> spp.	O
Broad-leaved lime <i>Tilia platyphyllos</i>	O
Horse chestnut <i>Aesculus hippocastanum</i>	O
Holly <i>Ilex aquifolium</i>	O
Cherry laurel <i>Prunus laurocerasus</i>	O
Common nettle <i>Urtica dioica</i>	O
Wood avens <i>Geum urbanum</i>	O
London plane <i>Platanus x hispanica</i>	R

Poor semi-improved neutral grassland.

Species	DAFOR
Yorkshire-fog <i>Holcus lanatus</i>	A
Rough meadow-grass <i>Poa trivialis</i>	A
Cock's-foot <i>Dactylis glomerata</i>	F
Perennial rye-grass <i>Lolium perenne</i>	F
Broad-leaved dock <i>Rumex obtusifolius</i>	O
Great willowherb <i>Epilobium hirsutum</i>	O
Bramble <i>Rubus fruticosus</i>	O
Soft rush <i>Juncus effusus</i>	O

Amenity grassland.

Species	DAFOR
Perennial rye-grass <i>Lolium perenne</i>	D
White clover <i>Trifolium repens</i>	F
Yorkshire-fog <i>Holcus lanatus</i>	O
Rough meadow-grass <i>Poa trivialis</i>	O
Creeping buttercup <i>Ranunculus repens</i>	O
Dandelion <i>Taraxacum officinale</i>	O
Autumn hawkbit <i>Leontodon autumnalis</i>	O
Daisy <i>Bellis perennis</i>	O



Species	DAFOR
Ribwort plantain <i>Plantago lanceolata</i>	O
Yarrow <i>Achillea millefolium</i>	O
Spear thistle <i>Cirsium vulgare</i>	R
Red dead-nettle <i>Lamium purpureum</i>	R
Common mouse-ear <i>Cerastium fontanum</i>	R
Groundsel <i>Senecio vulgaris</i>	R
Swine-cress <i>Coronopus squamatus</i>	R
Common bent <i>Agrostis capillaris</i>	R
Cut-leaved crane's-bill <i>Geranium dissectum</i>	R



Appendix C

Habitat Condition Assessments



Grassland: Modified grassland

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)	
Condition Assessment Criteria	
A	There are 6–8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present. Note – patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴)
Condition Assessment Result (out of 7 criteria)	
Condition Assessment Score	
Passes 6 or 7 criteria including passing essential criterion A.	Good (3)
Passes 4 or 5 criteria, including passing essential criterion A.	Moderate (2)
Passes 3 or fewer criteria; OR Passes 4–6 criteria excluding criterion A.	Poor (1)
Notes	
Footnote 1 – Creeping thistle <i>Cirsium arvense</i>, spear thistle <i>Cirsium vulgare</i>, curled dock <i>Rumex crispus</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common nettle <i>Urtica dioica</i>, creeping buttercup <i>Ranunculus repens</i>, greater plantain <i>Plantago major</i>, white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i>. Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover. Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement. Footnote 4 – Wildlife and Countryside Act 1981 (as amended).	

Condition assessments

Condition assessment criteria	Criterion passed?	
	Amenity grassland	Unmanaged species-poor semi-improved grassland
A	N	Y
B	N	N
C	Y	N
D	Y	Y



Condition assessment criteria	Criterion passed?	
	Amenity grassland	Unmanaged species-poor semi-improved grassland
E	Y	Y
F	Y	Y
G	Y	N
Condition	Poor	Moderate

Woodland and forest: Other woodland, broadleaved

Condition Sheet: WOODLAND Habitat Types				
Condition Assessment Criteria				
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)
A	Age distribution of trees	Three age-classes ¹ present.	Two age-classes ¹ present.	One age-class ¹ present.
B	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland ² .	Evidence of significant browsing pressure is present in 40% or less of whole woodland ² .	Evidence of significant browsing pressure is present in 40% or more of whole woodland ² .
C	Invasive plant species	No invasive species ³ present in woodland.	Rhododendron Rhododendron ponticum or cherry laurel Prunus laurocerasus not present, other invasive species ³ <10% cover.	Rhododendron or cherry laurel present, or other invasive species ³ >10% cover.
D	Number of native tree species	Five or more native tree or shrub species ⁴ found across woodland parcel.	Three to four native tree or shrub species ⁴ found across woodland parcel.	Two or less native tree or shrub species ⁴ across woodland parcel.
E	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native ⁵ .	50 - 80% of canopy trees and 50–80% of understory shrubs are native ⁵ .	<50% of canopy trees and <50% of understory shrubs are native ⁵ .
F	Open space within woodland	10–20% of woodland has areas of temporary open space ⁶ .	21–40% of woodland has areas of temporary open space ⁶ .	"<10% or >40% of woodland has areas of temporary open space ⁶ .
G	Woodland regeneration	All three classes present in woodland ⁸ ; trees 4–7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland ⁸ .	No classes or coppice regrowth present in woodland ⁸ .
H	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback ⁹ .	11% to 25% mortality and/or crown dieback or low-risk pest or disease present ⁹ .	Greater than 25% tree mortality and or any high-risk pest or disease present ⁹ .
I	Vegetation and ground flora	Recognisable NVC plant community ¹⁰ at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community ¹⁰ at ground layer present.	No recognisable woodland NVC plant community ¹⁰ at ground layer present.



J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland ¹¹ .	Two storeys across all survey plots ¹¹ .	One or less storey across all survey plots ¹¹ .
K	Veteran trees	Two or more veteran trees ¹² per hectare.	One veteran tree ¹² per hectare.	No veteran trees ¹² present in woodland.
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities ¹³ .	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .
M	Woodland disturbance	No nutrient enrichment or damaged ground evident ¹⁴ .	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground ¹⁴ .	More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground ¹⁴ .
Condition assessment result			Condition Assessment Score	
Total score >32 (33 to 39)			Good (3)	
Total score 26 to 32			Moderate (2)	
Total score <26 (13 to 25)			Poor (1)	
Notes				
Footnotes below refer to the EWBG woodland condition assessment methodology: EWBG (No date). Assessing your Woodland's Condition [online]. Available from: Woodland Wildlife Toolkit (sylva.org.uk) When applying this condition sheet, good practice would be to use the methodology associated with the EWBG toolkit. Footnote 1 – See EWBG method INDICATOR 1 for more information. If tree species is not a birch <i>Betula</i> sp., cherry <i>Prunus</i> sp. or <i>Sorbus</i> sp.: 0–20 years (Young); 21–150 years (Intermediate); and >150 years (Old). For birch, cherry or <i>Sorbus</i> species; 0–20 years = Young; 21–60 years =Intermediate; >60 years = Old. A recognisable age-class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an ‘age-class’ of young trees. Footnote 2 – See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed. Footnote 3 – See EWBG method INDICATOR 3 for more information. Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly. Check for the presence of all plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), particularly the following invasive non-native species: American skunk cabbage <i>Lysichiton americanus</i>; Himalayan balsam <i>Impatiens glandulifera</i>; Japanese knotweed <i>Reynoutria japonica</i>; cherry laurel <i>Prunus laurocerasus</i>; shallon <i>Gaultheria shallon</i>; snowberry <i>Symphoricarpos albus</i>; variegated yellow archangel <i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>; rhododendron <i>Rhododendron ponticum</i>; and tree-of-heaven <i>Ailanthus altissima</i>. Footnote 4 – See EWBG method INDICATOR 4 and Table 2 for more information. The number of different native tree or shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided in Table 2. Not all species listed are native to all parts of the UK. Note a list of commonly found non-native tree species are also included and should be recorded if present. Footnote 5 – See EWBG method INDICATOR 5 and for more information. The abundance of native tree species in upper (>5 m) and understorey (up to 5 m) layers including young trees and shrubs. "Footnote 6 - See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (for example, glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (for example, tarmac, buildings, rivers). Area is at least 10 m wide with less than 20% covered by shrubs or trees. Footnote 7 – Given the increased ratio of edge habitat to woodland where the woodland is <10 ha.				



Footnote 8 – See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4–7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

Footnote 9 – See EWBG method INDICATOR 9 for more information and Table 3 for a list of diseases and pests and their risk level.

Footnote 10 – See EWBG method INDICATOR 10 directing to NVC key for more information. The 'UKHab to NVC translation table' in the UK Habitat Classification resources may also be useful to assess this."

Footnote 11 – This criterion looks at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer. There might be no storeys where the woodland has been felled. See EWBG INDICATOR 11 for more information.

Footnote 12 – See EWBG method INDICATOR 12 for more information. See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England](https://publishing.service.gov.uk/government/publications/keepers-of-time-ancient-and-native-woodland-and-trees-policy-in-england)
(publishing.service.gov.uk) and:

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions](https://www.gov.uk/government/publications/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions)
- GOV.UK (www.gov.uk)

Footnote 13 – See EWBG method INDICATOR 13 for more information. This includes logs, large dead branches on the forest floor and stumps (<1 m tall) >20 cm diameter at narrowest point and >50 cm long. Also includes standing dead trees (>1 m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20 cm.

Footnote 14 – See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter.

Condition assessments

Condition assessment criteria	Criterion score	
	Baseline	Post-intervention
A	2	2
B	2	2
C	3	3
D	2	3
E	1	3
F	3	3
G	2	3
H	1	2
I	1	2
J	2	2
K	2	2
L	2	2
M	1	2
Total	24	31
Condition	Poor	Moderate



Individual trees: Urban tree

Condition Sheet: INDIVIDUAL TREES Habitat Type	
Condition Assessment Criteria	
A	The tree is a native species (or at least 70% within the block are native species).
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).
C	The tree is mature (or more than 50% within the block are mature).
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark
F	More than 20% of the tree canopy area is oversailing vegetation beneath.
Condition Assessment Result	
Passes 5 or 6 criteria.	Good (3)
Passes 3–5 criteria.	Moderate (2)
Passes 2 or fewer criteria.	Poor (1)
Note that 'Fairly Good' and 'Fairly Poor' condition categories are not available for this habitat type.	
Footnote 1 – See gov.uk standing advice on ancient and veteran trees. Available from: Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) And: Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)	
Footnote 2 – Enhancement of this habitat type is only possible by improving the habitat so that it meets all Criteria B, D and F. It is not possible or appropriate to enhance individual tree/s through meeting just one or two of those Criteria, nor by meeting Criteria A, C or E.	

Condition assessments

Condition assessment criteria	Criterion passed?					
	Native species, mature	Non-native species, mature	Native species, immature	Non-native species, immature	Native species, new	Non-native species, new
A	Y	N	Y	N	Y	N
B	Y	Y	Y	Y	Y	Y
C	Y	Y	N	N	N	N
D	Y	Y	Y	Y	Y	Y
E	N	N	N	N	N	N
F	Y	Y	Y	Y	Y	Y
Condition	Good	Moderate	Moderate	Moderate	Moderate	Moderate



