Preliminary Ecological Appraisal

Storthes Hall Student Village, Kirkburton

Ubrique Investments Ltd

SHF.1337.003.EC.R.001

'Experience and expertise working in union'

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Project:	Storthes Hall Student Village, Kirkburton
For:	Ubrique Investments Ltd
Status:	Final – Rev C
Date:	27th November 2023
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ii. The following key ecological features and associated recommendations have been identified:

- **Deciduous Woodland and Hedgerow Priority Habitat, notable Green Infrastructure, Ancient Woodland, Wildlife Habitat Network, Local Wildlife Sites, and Tree Preservation Orders –** (*Little North Spring Wood and other mature woodland bordering the site on all sides represents Deciduous Woodland Priority Habitat, provide valuable wildlife corridor and green infrastructure function across the landscape, and is covered by a TPO. Hedgerow Priority Habitat bounds the proposed off-site compensation area to the south-west. Areas of Ancient Woodland and Kirklees Wildlife Habitat Network in the surrounding area)* – Recommended that boundary woodland and hedgerow is retained and protected through the final site design. The construction phase should also implement measures to protect woodland habitats including implementing a sensitive lighting scheme to minimise potential habitat degradation. Woodland planting and other habitat creation required to offset necessary losses;

- **Bats –** *(All buildings provide opportunities for roosting bats, with previous evidence of roosts (droppings and 2018 nocturnal surveys). In addition, mature trees have been identified with potential roosting features)* – Considering the age of the previous 2018 data, updated nocturnal bat surveys are required and are presented in a separate Bat Survey report which includes details of required mitigation measures (including requirement for a Natural England licence application to permit demolition);

- **Badger –** (No evidence of Badger detected during any field surveys, however, boundary *woodland habitat provides favourable shelter and sett creation potential, and grassland provides foraging potential)* – Recommended a pre-commencement updated check is undertaken to ensure Badger setts remain absent from the site and to inform to design of any required mitigation measures;

- **Birds (general nesting) -** (*Habitats and buildings provide some limited opportunities for a range of species likely to be present in the area)* – Recommended site clearance is conducted outside of the nesting season, or if necessary within the nesting season, an Ecological Clerk of Works (ECoW) to advise and supervise works to ensure no active nests to be affected. No further detailed Breeding Bird Surveys deemed necessary or proportionate to inform the assessment of impacts and mitigation design assuming widespread loss of boundary woodland is not proposed;

- **Common Reptiles and Priority Species –** (*Habitat provide limited extent of suitable habitat for loss numbers of common reptiles and other Priority Species such as Hedgehog and Common Toad)* – Sensitive site clearance is recommended under the supervision of an ECoW;

- **Invasive Flora –** (*Rhododendron is frequent within boundary woodland. Japanese Knotweed previously detected in 2018 but appears no longer present*) – Recommended Rhododendron is removed during the construction phase, including burying on-site or otherwise disposing of responsibly off-site. If Japanese Knotweed is encountered, a specialist invasive species contractor should be consulted.

iii. Proposals present opportunities for biodiversity enhancement in order to demonstrate an overall biodiversity net gain in accordance with national and local policies through providing enhanced opportunities for nesting birds and roosting bats, and landscape planting.

iv. This report has demonstrated that, if the outlined mitigation measures are implemented in full then no significant residual impact could be expected, and the proposed application will result in 'no net loss in biodiversity,' whilst also providing opportunities for 'biodiversity net gain' in accordance with NPPF and Local Planning Policy.

1.0 Introduction

1.1 Commission

1.1.1 In July 2022 Enzygo Ltd was commissioned by Ubrique Investments Ltd. (the client) to undertake an updated Preliminary Ecological Appraisal (PEA) and Preliminary Bat Roost Assessment (PRA) of land at Storthes Hall Student Village off Storthes Hall Lane, Kirkburton, Huddersfield HD8 0PT (central grid reference: SE 1806 1278), located within the Kirklees Council (Kirkburton Ward) planning authority. This study presents an update to surveys previously completed in 2018 and has been updated again in November 2023 to include details of proposed off-site habitat compensation areas.

1.1.2 *Note: Enzygo Ltd are not considered to act as a Principal Designer for any mitigation/enhancement strategies identified within this document in accordance with the Construction (Design and Management) Regulations 2015 (CITB, 2016)*.

1.2 Proposed Development/Identification of Impacts

1.2.1 The study will inform proposals for redevelopment of the site to residential housing including demolition of existing buildings and habitat clearance, followed by construction of residential dwellings with associated access and greenspace. The Client will use the findings of this report to determine the final site proposals, including avoiding/mitigating impacts to ecological features where feasible to do so. This document can be updated into an Ecological impact Assessment (EcIA) once a final detailed layout and associated confirmation of impacts on ecological features has been identified. Refer to Appendix A for a plan of the proposals.

1.2.2 This report identifies ecological features, and potential impacts and effects, recommends proportionate avoidance/mitigation/compensation strategies, followed by enhancements. This information will advise the client on the potential constraints to proposals and inform the final site design. A corresponding zone of influence has been considered (this includes any transboundary effects regardless of administrative areas).

1.3 Aims and Objectives

1.3.1 The purpose of this report is to provide biodiversity information which succinctly identifies ecological features on site and within the corresponding zone of influence, identifies potential impacts resulting from the proposals, associated effects to ecological features, recommends proportionate avoidance, mitigation and compensation strategies, and identifies enhancements that can be implemented in accordance with the British Standard for Biodiversity BS42020:2013 (BSI, 2013) to demonstrate 'no net loss in biodiversity' and a 'biodiversity net gain' in accordance with NPPF and Local Planning Policy.

1.3.2 This report has been produced with reference to current *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017a), *Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), *Guidelines for Ecological Report Writing* (CIEEM, 2017b), Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn) (Collins, 2016) and British Standard BS42020:2013 (BSI, 2013).

1.4 Background/Acknowledgments

1.4.1 In 2018, a previous version of this Preliminary Ecological Appraisal was produced (Enzygo, 2018a), alongside a Bat Survey Report (Enzygo, 2018b). It is understood that these documents

were not submitted in support of a previous planning application, and instead were used to inform early site proposal and layout decisions.

1.4.2 A search of the Kirklees Council planning portal has revealed a previous planning application in 2007 for "*erection of 318 student bed accommodation and extension to Arboretum to provide ancillary facilities*" at the south-western end of the site. To support this application a protected species assessment was undertaken which briefly outlined potential ecological constraints to the application, however no detailed Phase 1 Habitat Survey or protected species surveys were undertaken.

1.4.3 Further applications at the site comprise a 2012 application for works to Tree Preservation Order (TPO) trees (planning reference 2012/TWA/90835), a 2004 application for "*erection of ground floor extensions to administration block*" (planning reference 2004/62/91015/E6), a 1995 application for "*erection of a sports hall and associated 2 storey changing activity and reception areas and temporary parking*" (planning reference 95/62/91076/E6) and a 1995 application for "*erection of facilities services building*" (planning reference 95/62/91055/E6). No ecological survey information is available for these applications.

1.4.4 To the south-west of the site is a 2016 application for "*erection of continuing care retirement community of approx. 300 units*" (reserved matters application reference 2016/90711). This application was supported by details of a bat mitigation strategy due to the presence of roosting bats at the former hospital building approximately 150m south of the student village. Information from this adjacent application has been referred to where appropriate in this report.

1.4.5 There have been no known discussions regarding ecology with the LPA/County Ecologist/third party consultees (i.e. EA or Natural England) for this application. However, we are aware that Kirklees Council have a specific policy relating to the submission of ecological information where there is the potential for bat roosts on-site, and as such this has been considered.

1.5 Local Planning Policy

1.5.1 The following policies of the Kirklees Local Plan Strategy and Policies document (Kirklees Council, 2019a) are applicable to biodiversity and nature conservation (provided in summary only and the full Local Plan document should be viewed for full details):

- **Policy LP30 – Biodiversity and Geodiversity**
- **Policy LP31 – Strategic Green Infrastructure Network**
- **Policy LP33 – Trees**
- **Policy LP34 – Conserving and Enhancing the Water Environment**

1.5.2 In addition, the site forms part of the site allocation covered by **Policy LP73 – Land at Storthes Hall**, as identified within the Kirklees Local Plan Allocations and Designations document (Kirklees Council, 2019b). This details site specific constraints and considerations which in relation to biodiversity include the presence and required retention of UK BAP Priority Habitat Woodland and TPO trees, and that the site lies within the Strategic Green Infrastructure Network and should consider links to the Kirklees Wildlife Habitat Network. Again, refer to the Kirklees Local Plan Allocations and Designations document for full details.

1.5.3 No additional Supplementary Planning Documents (SPDs) or guidance has been identified which is applicable to this assessment.

1.5.4 Refer to Appendix D for relevant details of European and National Legislation, and National Planning Policy.

1.6 Site Context

1.6.1 The approximately 9.5ha site comprises a student village located in a suburban location approximately 1.5km west of the village of Kirkburton and 5km south-east of Huddersfield town centre. The site comprises large student accommodation buildings, with other associated buildings including a reception and administration building, a gym, and the Venue building which contains a bar, function rooms and study areas.

1.6.2 Habitats at the site comprise close-mown amenity grassland, scattered trees and ornamental planting associated with the accommodation blocks, mature broadleaf trees predominantly around the perimeter of the site, and areas of unmanaged scrub, grassland and tall ruderal herb vegetation at the south-west of the site.

1.6.3 The north and west boundaries are defined by Storthes Hall Lane beyond which is residential housing, broadleaf woodland and open countryside. The east and south-east boundaries are demarcated by an unnamed access road beyond which is sports pitches and further broadleaf woodland. The south-western boundary is again defined by an unnamed access road beyond which is an active construction site associated with the former Storthes Hall Hospital.

1.6.4 The site lies within the Yorkshire Southern Pennine Fringe National Character Area (Natural England, 2013) which is characterised as a "*transitional landscape from the upland areas of the Southern Pennines NCA in the west through to the low-lying land of the Nottinghamshire, Derbyshire and Yorkshire Coalfield NCA to the east.*"

Figure 1 – Site Area

Image courtesy of Google Image Pro 7.3.2.5491 [Grid Ref: SE 1806 1278]. Imagery date April 2021 accessed 23rd November 2023. Illustrates the main site (redline) and proposed off-site habitat compensation area (blueline).

2.0 Methodology

2.1 Desk Study

2.1.1 Desk study details were obtained from the following sources on the associated dates to provide background on ecological features in the vicinity of the site. In each case the search included the site and the specified area beyond the site boundary based on the expected zone of influence. Candidate and potential designations are considered too as these are also legally protected. Records search for included:

- Statutory sites designated or classified under international conventions or European legislation within a 10km radius, statutory sites designated under national legislation (including Marine) within 5km, existing EPS Licence applications and Great Crested Newt Pond Survey records within a 2km radius, and Priority Habitat & Ancient Woodland Inventory within a 0.5km radius [Magic Map, 24th October 2022] (DEFRA, 2022);

- Tree Preservation Orders (TPOs) and Biodiversity Conservation Areas within the immediate zone of influence [Kirklees Council website, 24th October 2022];

- Waterbodies within a 0.5km radius (Online mapping sources including: Google Maps; Magic Map; and Ordnance Survey Street View, 24th October 2022);

- Locally designated wildlife sites & any notified Local Biodiversity Action Plan (BAP) Habitats, Legally protected species, any Priority species (which includes: National Biodiversity Species, Local BAP Species, Species of conservation concern and Red Data Book (RDB) species, Birds of Conservation Concern (BOCC), nationally rare and nationally scarce species, and OSPAR Commission list of threatened/declining species) and Invasive species (listed under section 14 of Schedule 9 only) within a 2km radius, and any important hedgerows/veteran trees within the immediate zone of influence [West Yorkshire Ecological Service (WYES) (17th August 2022)]; and

- Additional records of Bats within a 2km radius [West Yorkshire Bat Group (18th August 2022)].

2.1.2 The Data has been edited where relevant to prevent sensitive or confidential records being made public in accordance with Guidelines for Accessing, Using and Sharing Biodiversity Data (CIEEM, 2020).

2.2 Field Survey

2.2.1 Field Surveys were undertaken on the following dates by the identified staff, all of whom satisfy necessary field survey competencies as stipulated by the Chartered Institute for Ecology and Environmental Management (CIEEM). Weather conditions on the day of survey have been included and where relevant survey/class licence numbers referred to.

Table 1 – Survey Dates and Conditions

Survey	Date	Staff/Licence	Environmental Conditions and Times
Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment of Buildings and Trees	07/06/2018	Chris Schofield ACIEEM MSc. BSc. (Hons) [Principal Ecologist at Enzygo] under the guidance of Derek Allan MCIEEM MSc BSc [Hons] (Director of Ecology at Enzygo and a licensed bat surveyor (Natural England licence Level 2, 2015-14659-CLS-CLS))	Dry and clear (0% cloud cover), and 23°C with no wind.
Updated Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment	12/08/2022	Chris Schofield ACIEEM MSc. BSc. (Hons) [Principal Ecologist at Enzygo] under the guidance of Derek Allan MCIEEM MSc BSc [Hons] (Director of Ecology at Enzygo and a licensed bat surveyor (Natural England licence Level 2, 2015-14659-CLS-CLS))	Dry and clear (0% cloud cover), and 33°C with no wind.
Preliminary Ecological Appraisal of proposed habitat compensation areas	10/10/2023	Chris Schofield ACIEEM MSc. BSc. (Hons) [Principal Ecologist at Enzygo]	Dry and cloudy (90% cloud cover), and 15°C with light wind

Preliminary Ecological Appraisal

2.2.2 In accordance with Guidelines for Preliminary Ecological Appraisal 2nd Edition (CIEEM, 2017a) the Preliminary Ecological Appraisal (PEA) survey included the following.

UK Habitat Classification

2.2.3 This assessment has utilised the UK Habitat Classification (UKHab) methodology (UKHab, 2023) as the recommended published method of habitat classification. It has been used to categorise and map the primary habitat types present within the survey area using a standard set of habitat categories, with associated secondary codes/features identified where applicable. Details of current management and habitat condition have also been recorded where appropriate.

2.2.4 Each of the main habitats has been described; including details of component plant species abundances (recorded using the DAFOR scale: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare). Additionally, any stands of non-native invasive plant species were recorded. Habitat extents have been visually mapped onto a topographic plan, with approximate location/areas recorded only (a GPS unit has not been utilised to accurately recorded these).

Assessment of possible presence/likely importance for Protected & Priority Species

2.2.5 An assessment of the possible presence of protected or priority species, and the likely importance of habitat features present for such species has also been undertaken, particularly where uncommon or specialised habitats are present in accordance with current PEA guidelines (CIEEM, 2017a). However, no specific protected species survey has been undertaken unless listed under additional surveys as below. Any incidental sightings of protected or priority species, or field signs of such species has also been recorded. Species assessed include: Plants & Fungi; Terrestrial/aquatic invertebrates; Fish; Amphibians; Reptiles; Breeding, wintering and migratory birds; Bats (including potential roost sites, foraging and commuting habitats/features), Badger, and Other mammal species.

Preliminary Bat Roost Assessment

Preliminary Daylight Roost Assessment of Buildings

2.2.6 In accordance with current guidance (Collins, 2016), a systematic thorough search of the exterior and interior of the existing buildings was undertaken. This included any roof spaces, cellars, and unoccupied rooms. Equipment used to aid the survey included: ladders, low/high-powered torches and binoculars. Crawl boards and specialised PPE for confined spaces/asbestos were not utilised. Notes were made on the following:

- Type, construction and age of buildings (particularly if traditional materials have been used or the presence of specialist bat roosting features);
- Presence/absence of potential roost features throughout the interior (i.e. uncluttered isolated roof voids, warm and dark undisturbed spaces, gaps around ridge beams, exposed beam joints, gaps within traditional bituminous felt/wooden sarking boarding etc);
- Presence/absence of potential roost features throughout the exterior (i.e. raised ridge tiles, hanging tiles, raised/missing tiles or lead flashing that would allow access beneath roofing structures, crevices behind soffit boxing/barge boarding/ship-lap boarding, gaps around window frames and doors, boarded up windows, gaps within mortar or brickwork, access into wall cavities etc);
- Presence/absence of potential hibernation features (i.e. underground spaces or rooms that would provide an isolated stable temperature and moist conditions during the winter period etc);
- Environmental factors that would increase the probability of bat presence (i.e. dark zones with no/limited exterior lighting, south/west facing aspects, good quality foraging/commuting habitat nearby particularly prominent linear features) and those that would decrease the probability of bat presence (high light levels, dense urban areas, recent works, modern Breathable Roofing Membranes (BRMs) or other modern tight fitting roofing materials, recent timber treatment or pest control, ultrasonic rodent deterrents, draughty/exposed conditions, high levels of noise or vibration or human disturbance, poor quality foraging/commuting habitat etc); and
- Type and location of any roosting bat evidence (i.e. presence of live or dead bats, audible squeaking, droppings, feeding remains, urine stains, grease marks etc).

Preliminary Bat Roost Assessment of Trees

2.2.7 With reference to current survey guidelines BS8596:2015 (BSI, 2015), a scoping (non-specialist) survey for roosts of individual trees and groups of trees within and immediately adjacent to the site, was undertaken. Each tree was visually inspected from the ground (with the aid of binoculars and a high-powered torch) to identify Potential Roosting Features (PRFs), including checks for the presence of the following features that bats might be able to use:

- Natural holes (e.g. knot holes) arising from naturally shed branches, or branches previously pruned back to the branch collar;
- Man-made holes (e.g. cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
- Woodpecker holes;
- Cracks/splits in stems or branches (both vertical and horizontal);
- Partially detached or loose, platy bark;

- Cankers (caused by localised bark death) in which cavities have developed;
- Other hollows or cavities, including butt rots;
- Compression forks with included bark, forming potential cavities;
- Crossing stems or branches with suitable space between for roosting;
- Ivy stems with diameters in excess of 50mm with suitable roosting space behind (or where a roosting space can be seen where a mat of thinner stems has left a gap between the mat and the trunk);
- Bird and Bat boxes on trees; or
- Other features that offer a place of shelter.

2.3 Assessment

Assessment of Suitability of Features for Roosting Bats

2.3.1 Based on the findings of the preliminary bat roost assessment survey, the buildings have been classified into one of the following categories in accordance with current guidance (Collins, 2016). The assessment is made irrespective of species conservation status, which is established after presence is confirmed/following further surveys:

- Known or confirmed roost – Structure with evidence of bat use or bat presence;
- High Suitability – 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;
- Medium Suitability – A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status;
- Low Suitability – A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation); or
- Negligible Suitability – Negligible features likely to be used by roosting bats.

2.3.2 Following the preliminary assessment of trees, based on the signs present, each tree was classified as one of the following categories in accordance with current guidance BS8596:2015 (BSI, 2015):

- Known or confirmed roost – Trees with evidence of bat use or bat presence;
- High/medium risk – Trees with a suitable PRF, or with several features with some bat roost potential;

- Low risk – Trees of sufficient size and age to contain bat roosts but with no obvious PRFs seen during the scoping survey, or features seen with limited roosting potential only, e.g. small amounts of Ivy; or

- Negligible/no risk – Trees with apparently no potential to support bats.

Assessment of Potential Development Impacts

2.3.3 A level of importance has been assigned to each ecological feature, where sufficient baseline data is available to do so, in accordance with current guidance (CIEEM, 2018). This is defined within a geographical context as follows: International and European; National; Regional; Metropolitan, County, vice-county or other local authority-wide area; River Basin District; Estuarine system/Coastal cell; and Local (plus Negligible where no associated value has been identified). For example, importance of designated sites reflects the geographical context of the designation (where designated sites no longer meet designation criteria and those formally 'de-notified' or where an undesignated site meets published selection criteria must also be considered). When considering habitats and species contextual information about distribution and abundance of that habitat/species in the area must be considered (if the habitat/species status is currently in a degraded or unfavourable condition its potential value should be considered).

2.3.4 The assessment then considers potential impacts (both positive and negative) generated during the construction and operational phase of the proposed application. Only impacts that are likely to be significant are considered. Impacts that are either unlikely to occur, or if they did occur are unlikely to be significant, are not considered.

2.3.5 Cumulative impacts are then considered where the application meets criteria in accordance with national EIA screening guidance (GOV.UK, 2019), and where agreed with the competent authority during scoping. This takes into consideration existing background levels of threat or pressure, looks at critical thresholds, and assess both additive/incremental and associated/connected impacts and effects.

2.3.6 Relevant aspects of ecological structure and function are then considered when determining if identified impacts will have a significant effect upon ecological features. Where necessary, this assessment utilises information from other specialists i.e. air quality, hydrology etc, to determine the level of impact. In accordance with current guidance (CIEEM, 2018) these are described using the following characteristics, where relevant: positive or negative; extent; magnitude; duration; frequency and timing; and reversibility.

2.3.7 The mitigation hierarchy is then explored in accordance with BS42020:2013 (BSI, 2013). This seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. Justification has been provided by the client/their planner where the mitigation hierarchy cannot be followed, or for example where compensation is a preferred approach where the competent authority has adopted a County wide strategy i.e. District Level Licensing Schemes (GOV.UK, 2019). In this instance current national Biodiversity Offsetting guidance has also been consulted (GOV.UK, 2019). Additional information has also been provided by the client/their planner where the applicant wishes to demonstrate exceptional circumstances or where they wish to pursue alternative strategies. Any residual impacts following mitigation measures etc are then identified.

2.3.8 All mitigation measures follow species specific current best practice guidance and the source has been identified accordingly. Deviation from guidance has been explained by the ecologist

and is proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed works.

2.3.9 It is important that planning decisions are based on up-to-date ecological data, and the specific timeframe over which survey data is considered valid follows general advice (CIEEM, 2019). Additionally, it should be noted that the presence/absence and status of protected species can change seasonally/annually. The age of data should also be assessed separately when considering the submission of an EPS Licence (i.e. Natural England may require data to be from the current season).

2.3.10 Local Environmental Records Centres (LERC) issue a licence for use of provided biodiversity data for 1 year only, after which time this should be renewed to validate an application (and reports updated accordingly to incorporate any new records). Following completion of surveys all relevant biodiversity data will be submitted to the relevant LERC and other groups as appropriate.

2.4 Limitations

2.4.1 Data held by consultees may not be exhaustive; the absence of evidence does not indicate evidence of absence. Enzygo cannot take responsibility for the accuracy of external data sources and as such discrepancies and inaccuracies may occur.

2.4.2 Natural England do not hold information of Ancient Woodland less than 2ha in size.

2.4.3 Records over 10 years old for transient species (as these are likely to have moved during the interim) and species protected from sale only under the W&C Act 1981 and amendments, are excluded (as these are not relevant to a planning application). Additionally, given the large number of priority species, these have only been included if identified from the desk study and/or habitats recorded on site have been assessed as providing suitable conditions.

2.4.4 Geological sites have only been included within this report where they have biodiversity or nature conservation components to their designation.

2.4.5 At certain times of year flora species may be in a state of senescence and are not readily identifiable. However, June, August and October represent favourable times to identify the majority of flora species and it was possible to easily classify the commonly occurring habitat types. The timing of the survey is not perceived as a survey limitation.

2.4.6 This document does not contain a comprehensive list of botanical species on site. Only plant species characteristic of each habitat and incidental observations of notable plant species were recorded.

2.4.7 WYES and Kirklees Council do not supply information on Important Hedgerows or Veteran Trees.

2.4.8 All areas of the site were fully accessible. with all roof voids of each of the buildings accessed and surveyed. Due to the size of the buildings, it was not possible to inspect all potential roost features on the exterior building, however it is considered observations from the ground are sufficient to inform this preliminary assessment. Overall, it is considered no significant survey limitations were experienced.

3.0 Baseline Ecological Conditions

3.1.1 Ecological features identified by the desk study/field survey are presented below, along with their details and associated ecological value. Refer to Drawing SHF.1337.003.EC.D.001 to D.003 for the location/extent of ecological features where relevant.

Table 2 – Ecological Features

Ecological Feature	Details	Ecological Importance
Statutory sites designated or classified under international conventions or European legislation		
Denby Grange Colliery Ponds Special Area of Conservation (SAC) 8.9km east	Annex II species that are a primary reason for selection of this site: - Great Crested Newt (*Triturus cristatus*)	International
South Pennine Moors (SAC) 9.1km south-west	Annex I habitats that are a primary reason for selection of this site: - European Dry Heaths - Blanket Bogs - Old Sessile Oak woods with *Ilex* and *Blechnum* in the British Isles Annex I habitats present as a qualifying feature, but not primary reason for selection of this site: - Northern Atlantic wet heaths with *Erica tetralix* - Transition mires and quaking bogs	International
Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA) 9.1km south-west	The site qualifies under Article 4.1 of the Directive by supporting populations of European importance of the following Annex I species during the breeding season: - Golden Plover (*Pluvialis apricaria*) - Merlin (*Falco columbarius*) - Peregrine (*Falco peregrinus*) - Short-eared Owl (*Asio flammeus*) The site qualifies under Article 4.2 of the Directive by supporting populations of European importance of the following migratory species during the breeding season: - Dunlin (*Calidris alpina schinzii*)	International

Statutory sites designated under national legislation (& Impact Risk Zones)		
Impact Risk Zone (IRZ) *No SSSIs within a 5km radius (Honley Station Cutting SSSI 3.3km West not included as a Geological Site)*	The Impact Risk Zone (IRZ) in which the site lies states the LPA should consult Natural England on the likely impacts of the following development categories: - Airports, helipads and other aviation proposals. - Oil & gas exploration/extraction. - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.	N/A Proposals do not meet the criteria for which LPA should consult Natural England.
Local Nature Reserves		
Castle Hill Local Nature Reserve (LNR) 2.8km North-west	The Castle Hill site and Victoria Tower are unique landscape features in the area. The old fields and hillside are typical of acid grassland and scrub found on marginal areas of the surrounding Pennine fringe farmland, and the dry stone walls and hedgerows contribute to the landscape.	County
Upper Park Wood LNR 3.1km west	Mixed deciduous woodland with well-developed shrub layer	County
Other locally designated wildlife sites		
Carr Wood Local Wildlife Site (LWS) 175m north	Majority of the site is replanted ancient woodland with a species-rich ground flora, including abundant Native Bluebell (*Hyacinthoides non-scripta*).	County
Woodsome Lees Kirklees Site of Wildlife Significance 175m north	Species-rich grassland and wet and acid woodland	County
Woodview Meadows Farnley Tyas LWS 275m north-west	Complex of unimproved and semi-improved grassland, varying from dry acid grassland to wet neutral grassland.	County
Jenkinson Wood Kirklees Site of Wildlife Significance 610m south	Ancient semi-natural woodland	County
Thunderbridge LWS 800m south-east	Meadow grassland habitats	County
Dogley Kirklees Site of Wildlife Significance 800m north-east	Woodland, species-rich fen and standing water adjacent to Woodsome Beck.	County
Clough Wood LWS 1km south-west	Semi-natural ancient woodland	County

Brown Knoll Meadows LWS 1.1km south	Semi-natural ancient woodland, with an extensive Native Bluebell cover, species-rich neutral grassland and pond habitats.	County
Lumb House LWS & Kirklees Site of Wildlife Significance 1.2km south-west	A mosaic of species-rich acid and neutral grassland and fen habitats.	County
Almondbury Common LWS 1.3km north	Ancient and semi-natural woodland	County
Birks Wood LWS 1.5km south	Plantation woodland with an abundant Native Bluebell ground cover.	County
Allen Wood LWS 1.5km south-east	Ancient semi-natural woodland and species-rich acid woodland	County
Lepton Great Wood LWS 1.7km north-east	Ancient semi-natural acid woodland with an abundant Native Bluebell ground cover.	County
Shelley Wood LWS & Kirklees Site of Wildlife Significance 1.8m south-east	Ancient semi-natural acid woodland with a species-rich ground flora.	County
Upper and Lower Stones Wood LWS 1.8km south	Ancient semi-natural acid woodland with a species-rich ground flora.	County
Arkenley Lane LWS 1.9km north	Noted for its species-rich acid and neutral grassland. Site is of County Value	County
Arthur, Molly Carr and Roaf Woods LWS 2km north-west	Ancient and semi-natural woodland Site is of County Value	County
England HPI, Local BAP Habitats, Ancient Woodland, Important Hedgerows, Veteran Trees, TPOs and Conservation Areas		
Ancient Woodland Within a 500m radius of the site	13.3ha of ancient and semi-natural woodland within a 500m radius, at closest 175m north of the site. Total of 20.7ha of ancient replanted woodland within a 500m radius, located immediately beyond Storthes Hall Lane to the north and immediately beyond the unnamed road forming the south-east boundary.	County
Lowland Mixed Deciduous Woodland HPI Within the site	Total of 0.61ha of woodland at the south-east of the site identified as HPI. A further total of 13.5ha of the HPI within a 500m radius of the site, including immediately beyond the unnamed road forming the south-east boundary.	Local
Lowland Meadows HPI 275m north-west	1.8ha area of HPI located at Woodview Meadows Farnley Tyas LWS.	Local

Good quality semi-improved grassland (Non-priority) 270m north-west	Total of 3.3ha of habitat located at Woodview Meadows Farnley Tyas LWS.	Local
Tree Preservation Orders Within the site	The vast majority of woodland areas of the site are covered by TPOs, including along the south-east and northern boundaries, individual trees and rows of trees through the centre of the site, and Little North Spring Wood at the west of the site. Further TPOs cover woodland within a 500m radius of the site, notably immediately beyond Storthes Hall Lane to the north and immediately beyond the unnamed road forming the south-east boundary.	Local
Green/Blue & Aquatic Infrastructure, Dark Zones, and Local Policy		
Green Infrastructure	The woodland areas along the boundaries of the site provide wildlife corridor and green infrastructure function across the landscape, providing significant structural diversity and habitat connectivity.	Local
Blue Infrastructure	No habitats within or adjacent to the site provide any blue/aquatic infrastructure resource.	Negligible
Dark Zones	There are no known dark zones across the site. In accordance with the standard guidance specified in the *Guidance Notes for Reduction of Obtrusive Lighting* (Institution of Lighting Professionals, 2020), the application site likely falls under Environmental Zone E3 (Suburban – Medium district brightness).	N/A
Kirklees Wildlife Habitat Network Along the south-east site boundary and immediately adjacent to site	The woodland along the south-east boundary of the site and modified grassland to the east of the site are identified as part of the Kirklees Wildlife Habitat Network, with further areas present to the immediate north, east and south of the site and extending through the woodland habitats in the wider area.	Local

Habitat Types		
Buildings (u1b5) 	The site supports a total of 22 buildings, comprising 18 student accommodation blocks, the reception and admin building, a gym, The Venue which contains a bar and function rooms and the lodge at the campus entrance. There are no significant vegetation assemblages associated with the buildings, and they do not represent Priority Habitat.	Negligible
Developed Land – sealed surface (u1b) 	Hardstand car parks areas are located at the west and south of the site, with further regularly disturbed hardstand access roads and walkways present across the site. No significant vegetation assemblages associated with these areas, and they do not represent Priority Habitat.	Negligible

Broadleaved Mixed Woodland (w1)  *Little North Spring Wood*  *Northern boundary woodland belt*	Mature broadleaf woodland is present around each of the boundaries of the site. The woodland to the south and east comprises abundant Sycamore (*Acer pseudoplatanus*), Beech (*Fagus sylvatica*) and Horse Chestnut (*Aesculus hippocastanum*), with frequent Small-leaved Lime (*Tilia* sp.), Cherry (*Prunus* sp.) and Norway Maple (*Acer platanoides*), and occasional Goat Willow (*Salix caprea*), Silver Birch (*Betula pendula*), Whitebeam (*Sorbus aria*), Sweet Chestnut (*Castanea sativa*), Pedunculate Oak (*Quercus robur*) and Sessile Oak (*Quercus petraea*). The understorey supports frequent Holly (*Ilex aquifolium*), with occasional Elder (*Sambucus nigra*), Rhododendron (*Rhododendron ponticum*) and Cherry Laurel (*Prunus laurocerasus*), and the ground flora supports abundant Common Nettle (*Urtica dioica*) and Bramble (*Rubus fruticosus* agg.), with frequent Cleavers (*Galium aparine*) and Ivy (*Hedera helix*). The woodland belt along the northern boundary of the site supports abundant Sycamore, Horse Chestnut and Beech, with frequent Small-leaved Lime, Sweet Chestnut and Goat Willow, and occasional Silver Birch, Ash (*Fraxinus excelsior*) and Cherry. The understorey supports occasional Holly, Wych Elm (*Ulmus glabra*), Hawthorn (*Crataegus monogyna*), Laburnum (*Laburnum* sp.) and Hazel (*Corylus avellana*). The ground flora comprises abundant Bramble. Common Nettle and Ivy, with frequent Wood Avens (*Geum urbanum*), Rosebay Willowherb (*Chamerion angustifolium*) and Cleavers. Little North Spring Wood lies to the west of the site adjacent to Storthes Hall Lane and contains abundant Beech, with two very large specimens present, and Sessile Oak, with occasional Silver Birch, Horse Chestnut and Sycamore. The understorey supports abundant regenerating Beech, and occasional Holly, Cherry Laurel and Sycamore saplings. The ground flora comprises abundant Common Nettle, Cleavers and Bramble, with frequent Herb-robert (*Geranium robertianum*), Wood Avens and Hedge Bindweed (*Calystegia sepium*). These woodland areas represent Lowland Mixed Deciduous Woodland England HPI and are covered by TPOs.	Local

Coniferous Woodland (w2) 	To the east of the main Storthes Hall site is an area of Coniferous Woodland plantation. This woodland is characterised by abundant Fir (*Abies* sp.) and Spruce (*Picea* sp.), with occasional scattered Sycamore, Ash, Small-leaved Lime, Beech and Horse Chestnut. The shrub layer supports abundant Garden Privet (*Ligustrum ovalifolium*), frequent Cherry Laurel and Rhododendron, and occasional Holly, Hazel and Elder. The ground layer is characterised by abundant Common Nettle and Bramble, with frequent Wood Avens and Dandelion, and occasional Herb-robert, Common Hogweed and Male Fern. At the centre of the woodland is a cleared bare ground area with shipping containers and skips and which is classified as artificial unvegetated unsealed surface in accordance with the UK Habitat Classification (UKHab, 2023). Coniferous woodland does not present any England HPI or Local BAP Habitat, however does contribute to notable green infrastructure, habitat connectivity and wildlife corridor function surrounding the Storthes Hall site as described above.	Local
Scattered Trees (11) 	Throughout central areas of the site are scattered broadleaf trees. This includes a group of mature Sessile Oak, Pedunculate Oak and Beech to the rear of The Venue (Building 1) and further individual mature Beech and Pedunculate Oak to the front of the building. Further rows and individual scattered trees are present across the central and eastern parts of the site associated with the areas containing the student accommodation blocks. These planted trees comprise abundant Small-leaved Lime and Whitebeam, with frequent Large-leaved Lime (*Tilia platyphyllos*), Rowan (*Sorbus aucuparia*) and Cherry, and occasional Apple (*Malus* sp.), Norway Maple and Silver Birch. The mature trees to the rear and front of The Venue at the south of the site are covered by TPOs. The scattered trees do not represent any England HPI or Local BAP Habitat, and the planted trees associated with the student accommodation areas are not covered by TPOs. TPO trees are of local value.	Local

Dense Scrub (h3) 	In western areas of the site are areas of unmanaged self-seeded dense scrub and shrub vegetation. This vegetation comprises abundant Goat Willow, Silver Birch and Bramble, with frequent Hawthorn and occasional Buddleja (*Buddleja davidii*) and Sycamore saplings. The ground layer supports abundant Common Nettle. A further strip of young scrub and shrub vegetation is present to the north of the car park area and along the southern side of the belt of mature woodland along the northern boundary. This vegetation comprises young frequent Silver Birch, Sweet Chestnut, Holly, Ash, Beech, Sycamore and Cherry, with occasional Garden Privet (*Ligustrum ovalifolium*), Snowberry (*Symphoricarpos alba*), Dogwood (*Cornus sanguinea*) and Hazel. This area will likely succeed into woodland in time. These habitats do not represent England HPI or Local BAP Habitat, although do contribute to valuable green infrastructure function as outlined above.	Local
Introduced Shrubs (u1b6 1160) 	In central areas of the site, associated with the student accommodation blocks, are stands of introduced ornamental planting shrubs. These shrubs comprise *Hebe* sp., *Cotoneaster* sp., Cherry, *Berberis* sp., *Cornus* sp., *Rubus* sp. and Wilson's Honeysuckle (*Lonicera nitida*). These habitats do not represent or contribute to any England HPI or Local BAP Habitat.	Negligible

Modified Grassland (g4)  *Modified Grassland within main site*  *Modified Grassland to the immediate east*  *Proposed off-site compensation area 680m to the south-west*	Throughout central areas of the site is regularly mown species-poor amenity grassland. These areas are characterised by abundant Perennial Rye-grass (*Lolium perenne*), Annual Meadow-grass (*Poa annua*), Yorkshire-fog, Creeping Buttercup (*Ranunculus repens*) and White Clover (*Trifolium repens*), with occasional Dandelion (*Taraxacum officinale* agg.), Ribwort Plantain, Common Ragwort (*Senecio jacobaea*), Common Mouse-ear (*Cerastium fontanum*) and Daisy (*Bellis perennis*). A field unit to the immediate east of the main Storthes Hall site supports short species-poor modified grassland which appears to be regularly cut. The species assemblage is characterised by abundant Yorkshire-fog and White Clover, with frequent Perennial Rye-grass and Creeping Buttercup, and occasional Red Fescue (*Festuca rubra*), Cock's-foot (*Dactylis glomerata*), Dandelion, Red Clover (*Trifolium pratense*), Common Ragwort, Ribwort Plantain (*Plantago lanceolata*), Common Mouse-ear and Common Nettle (*Urtica dioica*). A small former garden allotment area lies in the north-west of this field unit with an abundance of tall ruderal vegetation including Common Nettle, Cleavers (*Galium aparine*), Willowherb sp. (*Epilobium* sp.) in addition to modified grassland species listed above. The proposed off-site compensation area approximately 680m to the south-west of the main Storthes Hall site comprises a modified grassland field unit, with a short sward and appears to be regularly cut. This field is characterised by abundant Perennial Rye-grass and Yorkshire-fog, with frequent Red Fescue, White Clover, Ribwort Plantain, Creeping Buttercup and Common Nettle, and occasional Cock's-foot, Annual Meadow-grass, Dandelion, Red Clover, Common Ragwort, Common Mouse-ear, Broad-leaved Dock (*Rumex obtusifolius*), Common Hogweed (*Heracleum sphondylium*), Cow Parsley (*Anthriscus sylvestris*), Spear Thistle (*Cirsium vulgare*) and Rough Hawkbit (*Leontodon hispidus*). At the south-west of the field is an area of cleared bare ground classified as artificial unvegetated unsealed surface in accordance with the UK Habitat Classification (UKHab, 2023). No significant vegetation assemblage is associated with this area and it appears to have been recently significantly disturbed. In the southern corner of this field is occasional scattered scrub and young trees including Oak (*Quercus* sp.), Willow and Hawthorn. In addition, towards the south-west of this field unit is a fence off area which appears to contain below ground water storage reservoirs, with localised areas classified as developed land sealed surface in accordance with the UK Habitat Classification (UKHab, 2023). Each of these grassland areas do not support any varied sward, or any notable bare ground areas, and are notably species-poor supporting on average 3 to 4 species per square metre. These areas do not represent England HPI or Local BAP Habitat.	Negligible

Native Hedgerow (h2a) 	Bordering the northern boundary of the proposed off-site compensation area to the south-west is a native hedgerow. This linear feature is tall, overgrown and relatively gappy and is associated with the dry-stone wall which forms the boundaries to this field unit. The hedgerow is on average 5m high by 3m wide, and characterised by abundant Willow species (*Salix* sp.), with frequent Silver Birch, and occasional Aspen, Rowan, Ash and Hawthorn. The ground flora is species-poor with no notable ancient woodland indicators and is characterised by abundant Bramble and Common Nettle, with frequent Ivy and Yorkshire-fog, and occasional Common Hogweed, Cow Parsley and Cock's-foot. Native hedgerow is an England HPI, comprising at least 80% native species and at least 20m long (Maddock, 2008).	Local
Other Neutral Grassland and tall herb (g3c 16) 	In western areas of the site are areas of neutral species-poor semi-improved grassland. These grasslands are characterised by abundant False Oat-grass and Yorkshire-fog (*Holcus lanatus*), with frequent Cock's-foot, Red Fescue (*Festuca rubra*), Common Nettle and Bramble, with occasional Dandelion, Common Hogweed (*Heracleum sphondylium*), Ribwort Plantain (*Plantago lanceolata*), Common Ragwort and Broad-leaved Dock. There are also localised stands of unmanaged tall ruderal herb vegetation. This vegetation comprises abundant Common Nettle, with frequent Bramble, Great Willowherb (*Epilobium hirsutum*), Common Hogweed, Broad-leaved Dock , Cock's-foot (*Dactylis glomerata*) and False Oat-grass (*Arrhenatherum elatius*), Hedge Bindweed, Rosebay Willowherb and Creeping Thistle (*Cirsium arvense*). These areas do not represent England HPI or Local BAP Habitat.	Negligible

Legally Protected & Priority Species (& Consultation Zones where applicable)		
Bats	The Preliminary Roost Assessment (PRA) has detected evidence of four roosts, located within roof voids at Buildings 1, 16, 18 and 20. In accordance with current guidelines (Collins, 2016), each of buildings 1 to 22 have *Moderate* suitability for roosting bats providing "*one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status"*. No suitable hibernation features have been identified. Refer to Appendix B for full details of the PRA results. In addition, a total of 16 trees have been identified as supporting potential roosting features (PRFs), with six trees (T3, T7, T9, T10, T11 and T12) having *Moderate* suitability and 10 trees (T1, T2, T4, T5, T6, T8, T13, T14, T15 and T16) having *Low* suitability. Refer to Appendix C for details of the preliminary tree assessment. Details of further nocturnal presence/absence surveys and roost characterisation assessment is presented in the separate Bat Survey Report, including survey results from surveys in 2018 and 2022 confirming the presence of bat roosts. In accordance with current guidelines (Collins, 2016) the mature woodland habitats surrounding the site and in the immediately surrounding area provide *High* suitability foraging and commuting habitat. Surveys in 2012 at the former Storthes Hall Hospital, 180m south of the site, identified roosts of Common Pipistrelle (*Pipistrellus pipistrellus*), and foraging and commuting activity of Soprano Pipistrelle (*Pipistrellus pygmaeus*), Noctule (*Nyctalus noctula*), Brown Long-eared (*Plecotus auritus*) and *Myotis* sp. (Quants Environmental Ltd., 2012). In addition to the above listed species, West Yorkshire Bat Group and West Yorkshire Ecological Service report records of Leisler's Bat (*Nyctalus leisleri*), Whiskered Bat (*Myotis mystacinus*), Daubenton's Bat (*Myotis daubentonii)* in the wider area of the site. The closest is a 2021 record of a Whiskered Bat roost from 475m to the south The site is likely located within a '*Kirklees District Bat Alert Zone'* as it is located within a 200m radius of woodland. Four records of previous Natural England EPS licence applications within a 2km radius with the closest a 2017 Common Pipistrelle licence record from approximately 250m to the south (licence reference 2017-30682-EPS-MIT).	Local

Badger	No incidental evidence of Badger detected during any field surveys either within the site or within an accessible 50m radius. The central areas of buildings, hardstanding and disturbed close-mown amenity grassland do not provide any notable opportunities for Badger, with limited suboptimal foraging potential only. However, the boundary woodland and surrounding woodland habitats outside of the site boundary provide favourable shelter, refuge and potential sett creation habitat for Badger. The confidential records provided by West Yorkshire Ecological Service confirm there are no records of setts within a 200m radius, and the nearest sett is approximately 1.5km from the site. It does however identify that the site lies within an area "*of increased probability of badger activity*".	Local
Dormouse	Boundary woodland provides suitable habitat for Dormouse, however, the site is in an area of the County where this species is significantly rare, if not extinct. No records of Dormouse within a 2km radius.	Negligible
Otter and Water Vole	No watercourses or waterbodies within or adjacent to the site providing any opportunities for Otter or Water Vole. The local records search identifies one record of Otter within a 2km radius in the last 10 years located 1.2km to the north and recorded in 2015. Also, one record of Water Vole within a 2km radius in the last 10 years located 1.7km to the north-east and also recorded in 2015.	Negligible
Other Protected Mammals	No evidence of, or specific opportunities for, any other species of protected mammal. No records of any other protected mammal species within a 2km radius.	Negligible
Specially Protected Birds	No evidence of, or significant specific opportunities for, any specially protected bird species within the site. For instance, no opportunities for nesting or roosting Barn Owl (*Tyto alba*) identified at the buildings or trees, and the disturbed habitats do not provide any notable foraging habitat for this species. The local data search has identified one record of Kingfisher within a 2km radius in the last 10 years, located 1.6km to the north-east and recorded in 2017. No records of any other Schedule 1 bird species in the last 10 years.	Negligible

Breeding, Wintering and Migratory Birds	Boundary woodland, dense scrub and scattered trees provide suitable habitat for a range of nesting species which are likely present in the local area. The introduced shrub and buildings also provide a limited extent of potential nesting habitat. No habitats present which are likely to specifically attract or provide opportunities for migratory or wintering bird species, and no significant potential for ground-nesting species such as Lapwing (*Vanellus vanellus*) or Skylark (*Alauda arvensis*). The data search has revealed records of several Priority Species of bird within a 2km in the last 10 years including Cuckoo (*Cuculus canorus*), Dunnock (*Prunella modularis*), House Sparrow (*Passer domesticus*), Linnet (*Carduelis cannabina*), Song Thrush (*Turdus philomelos*) and Starling (*Sturnus* vulgaris).	Local importance to a restricted range of common bird species.
Common Reptiles	Unmanaged areas at the west of the site provide a limited extent of suitable basking, sheltering and foraging habitat for common reptiles, with broadleaf woodland also providing some shelter and hibernation potential. The majority of the site, supporting the student accommodation blocks with regularly mown amenity areas, which receive a high level of disturbance, do not provide favourable foraging and basking habitat for reptiles and no notable hibernacula. No records of reptiles within a 2km radius in the last 10 years.	Negligible
Great Crested Newt	No waterbodies providing any potential for breeding Great Crested Newt (GCN) within the site or immediate adjacent land. Aerial imagery and OS maps indicate there are two potential breeding ponds within a 500m radius of the site boundary, located 250m to the north and 480m to the north-west. It is considered that there are vast areas of favourable terrestrial habitat for GCN in close proximity to these ponds and therefore any GCN present are unlikely to migrate over 250m to habitats within the proposed development site. In addition, there are no nearby ponds to the south and south-east of the site to which GCN would be likely to migrate across the proposed development site towards from the ponds to the north. No records of GCN within a 2km radius, including no records of previous Natural England EPS licence applications.	Negligible

Other Protected Herpetofauna	No suitable habitats within or immediately adjacent to the site specifically suitable for other species of protected herpetofauna. No records of other protected amphibian or reptile species within a 2km radius.	Negligible
Protected Fish/Marine	No watercourses or waterbodies within the site providing any opportunities for fish or marine species. No records of any protected fish within a 2km radius.	Negligible
White-clawed Crayfish	No streams, ditches or other watercourses within the site providing any opportunities for White-clawed Crayfish. No records within a 2km radius.	Negligible
Protected Invertebrates	Only widespread and common habitats typical of the farmland landscape are present. No habitats present which are likely to support a range or diversity of invertebrates or likely to support any protected invertebrate species. The data record search has not revealed any protected invertebrate species within the search area.	Negligible
Protected Flora	No protected flora species detected during the field survey. Only common and widespread habitats present, and unlikely to support any protected flora species. No records of protected flora within a 2km radius.	Negligible
Invasive Flora	Rhododendron (*Rhododendron ponticum*) is frequently found within the shrub layer of the boundary woodland. Japanese Knotweed (*Fallopia japonica*) was detected at the north and west of the site in 2018 however was not found in these locations in 2022 (indicating these have potentially been treated/eradicated). No other invasive flora species, as listed on Schedule 9 of the Wildlife and Countryside Act 1981, detected during the field surveys in 2018 and 2022. Records of Japanese Knotweed, Canadian Waterweed (*Elodea canadensis*), Indian Balsam (*Impatiens glandulifera*) and Rhododendron in the wider area	Local
Invasive Fauna	No invasive species detected during the survey and no specific opportunities for any invasive species identified. Records in the wider area of Signal Crayfish (*Pacifastacus leniusculus*) and Grey Squirrel (*Sciurus carolinensis*).	Negligible
Priority Species	The woodland, scrub, and unmanaged grassland areas provide foraging and sheltering opportunities for Priority Species including Common Toad (*Bufo bufo*) and Hedgehog (*Erinaceus europaeus*). Records in the wider area of White Letter Hairstreak (*Satyrium w-album*), Cornflower (*Centaurea cyanus*), Moschatel (*Adoxa moschatellina*), Common Centuary (*Centaurium erythraea*), Marsh Stitchwort (*Stellaria palustris*) and Native Bluebell (*Hyacinthoides non-scripta*).	Local

4.0 Assessment and Mitigation

4.1.1 Assessment of impacts and the associated ecological effect to identified ecological features are presented below. Ecological features have been screened out where no likely significant impacts have been identified or where impact is unlikely to occur. Cumulative effects are also considered where applicable.

4.1.2 To clarify, other than the ecological features listed below, there are no perceived potential impacts on any other sites, habitats or species in the wider area. The proposals are of a type, scale and distance that any direct or indirect construction or operational impacts on the other identified ecological features are reasonably discounted. Specifically, no additional anticipated impacts of the proposals have been identified on designated sites in the wider area, including no anticipated impacts on Denby Grange Colliery Ponds SAC, South Pennine Moors SAC and Peak District Moors SPA (i.e. considering the distance to the sites and the levels of development already in the area, no significant increase in recreational pressure is anticipated). It is not considered any formal Habitat Regulations Assessment (HRA) is required in this instance to confirm no likely significant effects of the proposals on these European sites.

Table 3 – Assessment of effect and mitigation measures

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Deciduous Woodland Priority Habitat, notable Green Infrastructure, Ancient Woodland, Wildlife Habitat Network, Local Wildlife Sites, and Tree Preservation Orders	Risk of loss, damage and/or degradation of Priority Habitat, Ancient Woodland, Wildlife Habitat Network and TPOs which provide notable Green Infrastructure and wildlife corridor function. Significant adverse, temporary, irreversible impact	To ensure compliance with local policies LP30, LP31 and LP73, it is recommended that the final site proposals incorporate the retention of the areas of broadleaf woodland, and other areas of scrub and groups of mature trees. To minimise the risk of damage to these features, appropriate protection fencing should be implemented throughout the construction phase in accordance with Trees in Relation to Design, Demolition and Construction to Construction - Recommendations (BS 5837:2012). All contractors are to me made aware of the purpose of the fencing, with signage used where necessary, and no works are to occur beyond this established boundary, including no storage of materials or machinery. If there is required breaching or fragmentation of existing green infrastructure (e.g. for new access roads), mitigation will be required through habitat creation and landscape planting to retain habitat connectivity function. In addition, to avoid potential degradation of this adjacent habitat through excessive artificial lighting overspill, a sensitive lighting scheme shall be implemented making use of suitable products such as directional, low-level, capped, screened and/or low-lux lighting.	If there is any unavoidable loss of identified woodland habitat to permit development, it will be necessary to demonstrate appropriate compensation for this loss. This may include establishing new areas of woodland habitat within the site which consisting of native species appropriate to the site conditions and local area. It would be necessary to demonstrate that these woodland habitats compensate for any fragmentation of the green infrastructure and wildlife corridor function currently provided at the site.	No significant effect anticipated

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Bats	Risk of killing/injury of roosting bats and destruction of roosts during works. Risk of significant adverse, permanent, irreversible impact. Risk of degradation of suitable bat foraging and commuting habitat. Minor adverse, permanent, reversible impact.	The separate Bat Survey Report presents details of further nocturnal surveys conducted in accordance with current guidance (Collins, 2016), and details of required mitigation in relation to the presence of roosting bats. If any of the identified trees which support features of *Moderate* Suitability for roosting bats (T3, T7, T9, T10, T11 and T12) cannot be retained, as recommended above, further survey will be necessary to establish the presence or absence of roosting bats. This may include nocturnal presence/absence surveys or investigation of the features at height. In accordance with current guidance BS8596:2015 (BSI, 2015), no further assessment is required of 'Negligible/no risk' or of 'Low risk' trees, unless sufficient new evidence is found to upgrade the category. As such, the proposed felling of trees: T1, T2, T4, T5, T6, T8, T13, T14, T15, T16 and all other trees across the site, can proceed with no further ecological constraint in regard to roosting bats. The protection measures highlighted above in relation to physical protection and lighting will minimise the risk of loss or degradation of the suitable foraging and commuting habitats. The lighting scheme should be designed in accordance with the recent guidance *Bats and artificial lighting in the UK* (Institute of Lighting Professionals, 2018). Further consideration and assessment required if it is determined woodland and significant loss of trees within boundary woodland require felling.	See separate Bat Survey Report for further details.	No significant effect anticipated

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Badger	Low risk of damage/destruction of Badger setts. Minor adverse, permanent, irreversible impact. Risk of killing/injury of Badger and during construction works Minor adverse, permanent, irreversible impact.	A pre-works updated Badger Survey shall be undertaken prior to commencement of the construction phase to ensure Badger remain absent from the site, and to inform necessary mitigation measures in the unlikely event they are found to be present. In any case, as Badger are known to be present in the local area, and are at risk of harm if they were to stray into the construction site during works, the following reasonable avoidance measures should be adhered to (with all relevant site contractors informed of these details): - No works will be conducted at night, or dawn/dusk when Badgers are likely to be active; - Any holes, trenches or other excavations in which Badger may fall into and become trapped will be covered overnight, or otherwise a means of escape provided (e.g. a plank of wood); - If piles of soil are to be stored within the site, these will be left uncompacted and not permitted to grass over to reduce the likelihood of Badger using them for new sett excavation; - Any pipes between 0.1 and 0.5 in diameter must be stored with caps on to prevent Badger access; and, - Any chemicals will be stored securely so that they cannot be accessed by inquisitive Badger.	None required.	No significant effect anticipated
Nesting Birds	Risk of disturbance of nesting birds during construction phase. Minor adverse, temporary, irreversible impact. (no significant loss of habitat assuming retention of boundary woodland)	To avoid an offence being committed in respect of nesting birds, site clearance including demolition will be planned to be conducted outside of the bird nesting season (March to August inclusive), where possible. If it is necessary to undertake these works during the bird nesting season, a suitably trained Ecological Clerk of Works (ECoW) would supervise the clearance to ensure no active nests are affected. If any active nests are detected, an appropriate protection area around the nest(s) will be established until it can be determined that the nest is longer active. The recommendations above for retention and protection of the woodland habitats will ensure there is no significant loss of nesting habitat. If significant areas of the woodland are to be lost through the proposals, it will be necessary to undertake further breeding bird surveys to establish the assemblage of breeding birds utilising the habitat, and to enable the identification of appropriate mitigation/compensation measures.	None required.	No significant effect anticipated

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Common Reptiles and Priority Species	Low risk of killing/injury of individual numbers of common reptiles and other Priority Species during the construction phase. Minor adverse, temporary, irreversible impact.	To minimise the risk of harm to reptiles, Priority Species and other notable wildlife, construction activities to prepare the site should be undertaken in an ecologically sensitive manner. Scrub and unmanaged grassland will initially be cut/flailed to a height of 0.15m to encourage any wildlife present to move outside of the working area, and also searched by a suitably qualified ECoW, before the top-soil is stripped. In addition, all potential hibernacula, such as any deadwood clearance from woodland areas or piles of rubble/debris shall be undertaken outside of the hibernation season (from April to October inclusive) and under the supervision of an ECoW.	None required.	No significant effect anticipated
Invasive Flora	Risk of causing the spread of invasive flora in the wild Minor adverse, temporary, reversible impact.	Recommended Rhododendron is removed during the construction phase, including burying on-site or otherwise disposing of responsibly off-site. If Japanese Knotweed is encountered, a specialist invasive species contractor should be consulted on appropriate treatment/eradication measures.	None required.	No significant effect anticipated

5.0 Enhancement and Monitoring

5.1.1 Opportunities for biodiversity enhancement (above and beyond those required to mitigate for any identified impacts) have been determined through consideration of: Ecological Features identified on site and within the zone of influence; Historical records of protected species/habitats present within the locality; National and Local planning policy including National and Local Biodiversity habitats/species; Local Development Plans including consideration of Green/Blue Infrastructure Resource; Consultation with third parties/stakeholders where applicable; and Other influencing factors such as underlying Geology/Hydrology, intended operational activities, and existing disturbance activities within the locality. This makes specific reference to Biodiversity Net Gain, Good practice principles for development (CIEEM, IEMA, CIRA, 2019).

5.1.2 It is confirmed that the below enhancements, in combination with the above-described mitigation measures, and considering the Negligible value of large areas of existing buildings, hard landscaping and modified grassland, and proposed retention and enhancement of valuable boundary woodland habitat, can demonstrate an overall net gain for biodiversity. A separate DEFRA Metric 4.0 calculation has been provided based on the baseline habitat survey information and the outline development proposals. In accordance with Schedule 14 of the Environment Act 2021 which requires a demonstrable 10% net gain (and which is due to become mandated in early-2024), and the *Kirklees Council Biodiversity Net Gain Technical Advice Note* (Kirklees Council, 2021), this demonstrates that a measurable +10% net gain in habitat and hedgerow units is feasible and achievable. At the Reserved Matters stage, once a confirmed site layout and detailed Landscape Planting proposals are available, an updated version of the Defra Metric 4.0 (or latest version at the time of production) should be produced confirming that the net gain target is to be achieved based on final plans, with associated habitat/landscape management plan with details confirming the management and monitoring requirements in order to ensure target habitats conditions are to be met.

Table 4 – Enhancement & Monitoring

Ecological Feature	Enhancement & Monitoring	Significance of Residual Effect
Landscape Planting	The final landscape planting scheme shall incorporate a range of native species and species which are known to be of value to wildlife and which are suitable to the site location and conditions. Planting should be focussed on a linear design to provide enhanced habitat connectivity and wildlife corridor function across and around the site, including complementing and contributing to existing boundary woodland.	Minor positive effect
Nesting Birds	To provide enhancement opportunities for nesting birds the development could incorporate bird nest boxes suitable for a range of species likely to present at the developed site (e.g. House Sparrow, Starling etc.). Boxes should be positioned 2.5 to 5 metres above ground level, away from major sources of human disturbance and where positioned on buildings or structures should also avoid south-facing elevations where excessive sunlight can cause chicks to overheat in the nest.	Minor positive effect

Ecological Feature	Enhancement & Monitoring	Significance of Residual Effect
Roosting Bats	To provide enhancement opportunities for roosting bats the development could incorporate provision of bat roost boxes. The boxes should be positioned 2.5 to 5 metres above ground level, away from major sources of human disturbance and artificial lighting and should face onto suitable foraging and commuting habitats (e.g. new landscape planting).	Minor positive effect
Deadwood Hibernacula	It is recommended that informal deadwood hibernacula are created at the site boundaries to provide enhanced refuge, shelter and hibernation opportunities for a range of wildlife including small mammals, common amphibians and invertebrates. The woody arisings from any required scattered tree clearance would provide suitable materials for the creation of these piles rather than any requirement to import materials from off-site.	Minor positive effect

5.1.3 Refer to the separate Bat Survey Report for details of monitoring required in relation to the necessary Natural England licence. Otherwise, no post-determination monitoring is perceived necessary. To comply with guidance set out in BS42020:2013, a Construction Environment Management Plan (CEMP) which includes consideration of biodiversity will be produced prior to the commencement of construction activities, including site clearance works. A Landscape and Ecological Management Plan (LEMP) would also normally be produced prior to operation of the site.

6.0 Conclusion

6.1.1 This assessment has confirmed the site provides opportunity to incorporate appropriate measures to mitigate any potential impacts to ecological features and to demonstrate 'biodiversity net gain in accordance with NPPF and local planning policy. As such, no significant residual impact can be expected which would prevent a positive determination of the planning application in ecological terms.

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Drawing SHF.1337.002.EC.D.001 – UK Habitat Classification Map

Key

- Site Boundary
- Modified Grassland (g4)
- Other Neutral Grassland (g3c)
- Desnse Scrub (h3)
- Scattered Trees (11)
- Rhododendron
- Developed Land, Sealed Surface (u1b)
- Buildings (u1b5)
- Ornamental Planting (u1b6 1160)
- Artificial unvegetated unsealed surface (u1c)
- Built Linear Features (u1e)
- Broad-leaved Woodland (w1)
- Coniferous woodlands (w2)

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CLIENT: Ubrique Investments Ltd

SCALE: 1:2,000@A3

PROJECT REF: SHF.1337.003

DRAWN: LB

CHECKED: CS

DATE: Nov 2023

PROJECT: Storthes Hall Student Village

TITLE: UK Habitat Classification Map

DRAWING NO: SHF.1337.003.EC.D.001

Key

- Site Boundary
- Modified Grassland (g4)
- Native hedgerow (h2a)
- Developed Land, Sealed Surface (u1b)
- Artificial unvegetated unsealed surface (u1c)
- Built Linear Features (u1e)
- Scattered Trees (11)

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SCALE: 1:2,000@A3

PROJECT REF: SHF.1337.003

DRAWN: LB

CHECKED: CS

DATE: Nov 2023

PROJECT: Storthes Hall Student Village

TITLE: UK Habitat Classification Map

DRAWING NO: SHF.1337.003.EC.D.002

Drawing SHF.1337.002.EC.D.002 – Preliminary Bat Roost Assessment

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CLIENT:
Ubrique Investments Ltd

SCALE: 1:2,000@A3

PROJECT REF: SHF.1337.002

DRAWN: MG

CHECKED: CS

DATE: July 2018

PROJECT:
Storthes Hall Student Village

TITLE:
PRA Results Map

DRAWING NO:
SHF.1337.002.EC.D.002

Drawing SHF.1337.002.EC.D.002 – Desk Study Plan

Carr Wood
Local Wildlife Site

500m buffer

Woodsome Lees Kirklees
Site of Wildlife Significance

Woodview Meadows
Farnley Tyas
Local Wildlife Site

Leigh Fields
Field Lane
Woodsome Lees Farm
Woodsome Bridge
Gas Distribution Site
Weir
Storthes Hall Bridge
Range Dike
North Spring Wood
Little North Spring Wood
Car Park
Arboretum
The Long Barn
Dale Bank
The Mansion
Farnley House
Ash Croft
The Range
All Weather Pitch
Ravensknowle
Tip (dis)
Myers Wood
Tanyard Plantation
Saville Wood
Lower Hartley Bank Wood
Storthes Hall Moor Wood
Moor Side
Moorside
Storthes Hall Moor
Moor House
Sports Ground
Farnley
Boothroyd Wood
Mills
PH
Track
Path
Issues
Sinks
Scale: 1:6,000@A3

Key

- Site Boundary
- Deciduous Woodland HPI
- Kirklees Wildlife Habitat Network
- Tree Preservation Order (TPOs)
- Local Wildlife Site (LWS)
- Kirklees - Site of Wildlife Significance
- Ancient Woodland

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CLIENT: Ubrique Investments Ltd

SCALE: As shown
PROJECT REF: SHF.1337.002

DRAWN: MG
CHECKED: CS
DATE: July 2018

PROJECT: Storthes Hall Student Village

TITLE: Desk Study Results

DRAWING NO: SHF.1337.002.EC.D.003

Appendix A – Site Proposals

STORTHES HALL, **KIRKBURTON**

Planning Layout - Scale 1:1000

ISSUE FOR PLANNING

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS STATED OTHERWISE.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE CONSTRUCTION COMMENCES.
4. EXISTING SERVICE RUNS TO BE VERIFIED BY SITE INSPECTION.

LEGEND

- Reception building & The Venue building
- Application red line
- Existing Trees to be retained

N

Storthes Hall, Kirkburton
Schedule of Accomodation

House Type	Bed No /Storey	Type	Parking	No. Units
Freesale				
1 Bedroom				
Fog	1B/1S	Apt	PS	1
2 Bedroom				
Apt 1	2B/1S	Apt	PS	2
A Type	2B/2S	End/ Mid	PS	15
B Type	2B/2S	End/ Mid	PS	21
B1 Type	2B/2S	End	PS	4
3 Bedroom				
C Type	3B/2S	End/ Mid	PS	45
C1 Type	3B/2S	End	PS	11
D Type	2B/2S	End/ Mid	PS	2
E Type	3B/2S	Det	PS	2
F Type	3B/2S	Det/ End	PS	23
F1 Type	3B/2S	End	PS	2
G Type	3B/2.5S	End/ Mid	PS	12
H Type	3B/3S	Mid	PS	1
J Type	3B/3S	Mid	PS	1
R Type*	3B/3S	Mid	INT	8
S Type*	3B/3S	End/ Mid	INT	5
4 Bedroom				
K Type	4B/2S	Det	INT	7
L Type	4B/2S	Det/ End	PS	19
M Type	4B/2S	Det	INT	11
N Type	4B/2S	Det	INT	10
P Type	4B/2S	Det	SG	21
P1 Type	4B/2S	Det	SG	2
Q Type	4B/2S	Det	SG	19
5 Bedroom				
V Type	5B/2S	Det	INT	6
T Type	5B/2S	Det	DG	5
U Type	5B/2S	Det	DG	6
			Total	261

Rev	Description	Date

PARKER PEEL
ARCHITECTURAL
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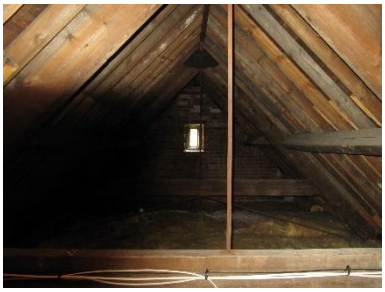
Client
Ubrique

Project
1826
Residential Development at
Storthes Hall, Kirkburton

Title
Planning Layout

Drw. No.	Rev.	Scale	Drawn	Checked	Date
1826-SI-03	-	1:1000@A1	GK	AK	07/23

Appendix B – Building Preliminary Bat Roost Assessment

Reference	Photos	Description	Assessment
Building 1	 South elevation  East elevation  Roof void  Roost evidence (old droppings)	One of the original Storthes Hall buildings from 1904. Now known as The Venue and comprises a two-storey building, with a bar and restaurant on the ground floor and function rooms and teaching areas on the first floor. The brick building supports a complex pitched tiled roof with parapet walls at the gable ends. The building is generally well-sealed and in good condition (particularly the condition of the roofing tiles), however opportunities for access by bats are located at localised gaps in the ridge tiles, associated with lead flashing, and at the edges of roofing tiles. Internally, the roof space is divided into three undisturbed roof voids. These voids contain timber rafters and purlins, and exposed timber boarding with no roofing membrane. An area of approximately 50 bat droppings was found within the roof void at the south-east of the building on an area of fibreglass insulation at the centre of the void. These dropping appear several years old and mostly degraded, with no fresh droppings present. Droppings were collected for DNA analysis. No other droppings were detected within the roof voids. A cellar is also present, which is currently used as storage for the bar and restaurant. Undisturbed, darkened rooms are present; however, no evidence of roosting bats was detected, and no opportunities were noted for bats to access these areas. The presence of hibernating bats within the cellar is reasonably discounted.	Confirmed Bat Roost (Roost 1) Medium Suitability

Reference	Photos	Description	Assessment
Building 2	 South and east elevations  Roof void in eastern section	A building currently used as a gym, with a two-storey eastern section and a single-storey adjoining western section. The building is approximately 20 years old and has been constructed in the style of Building 1. Externally, the building is in good condition and is well-sealed. No significant opportunities for access by bats were noted, however localised gaps may be present at lead flashing, ridge tiles and at the edges of roof tiles. Internally, a roof void is present above each of the eastern and western sections. Both are alike in there construction, with timber rafters and props supporting a roof covered in roofing membrane. No evidence of roosting bats was detected at the building.	Medium Suitability
Buildings 3 - 20	Buildings 3 to 20 are large three or four storey student accommodation blocks built in an identical style approximately 20 years ago, constructed from sandstone brickwork with a pitched tiled roof. Externally the buildings are in good condition, and generally well-sealed and maintained with no obvious gaps or accesses providing opportunities for roosting bats. There are localised areas where access may be permitted associated with flashing, edges of roof tiles and at ridge tiles, and all buildings are of such a size that the roof and all elevations could not be thoroughly inspected during the survey. Internally the roof voids are divided into several sections (or rooms) which are roughly equal in size at 20m in length and are connected by doors and walkways which run the full length of the building. Plant rooms are present at the ends of the buildings, with open central voids approximately 3m high with exposed timber rafters, purlins and props, and exposed roofing membrane. The voids remain dark and undisturbed for the majority of the time, with security and maintenance making occasional visits only walking the length of the roof void. Air gaps are present the full length of the buildings between the wall tops and the roof, providing opportunities for access by bats into the voids, to beneath the roofing tiles and to between pieces of roofing membrane. Mouse and rat droppings are frequently encountered in the voids of the buildings. To avoid repetition, features are only noted below if they are unique to the building or are pertinent to this assessment.		

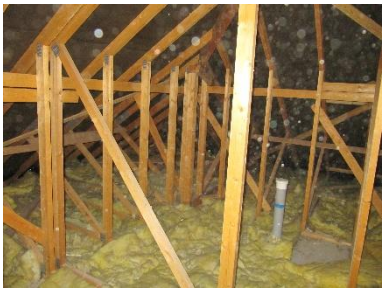
Reference	Photos	Description	Assessment
Building 3	 North and east elevations  Roof void  Plant room	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 4	 East elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

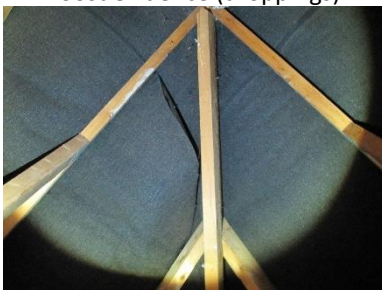
Reference	Photos	Description	Assessment
Building 5	 South elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 6	 West elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

Reference	Photos	Description	Assessment
Building 7	 North elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 8	 West elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

Reference	Photos	Description	Assessment
Building 9	 East elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 10	 South elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

Reference	Photos	Description	Assessment
Building 11	 South elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 12	 South and east elevations  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

Reference	Photos	Description	Assessment
Building 13	 South and west elevations  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 14	 South and east elevations  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

Reference	Photos	Description	Assessment
Building 15	 South and east elevations  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 16	 North and east elevations  Roost evidence (droppings)  Roof membrane above droppings	An area of approximately 30 bat droppings was found within the roof void at the south of the building on an area of fibreglass insulation. These dropping appear relatively fresh (approximately 0.6-1cm in size) and have accumulated beneath a piece of loose roofing membrane. Droppings were collected for DNA analysis.	Confirmed Bat Roost (**Roost 2**) Medium Suitability

Reference	Photos	Description	Assessment
Building 17	 East elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability
Building 18	 East elevation  Roof void  Roost evidence (droppings)	An area of approximately 15 bat droppings was found within the roof void at the east of the building on an area of fibreglass insulation. These dropping appear relatively fresh (approximately 0.6-1cm in size) and have accumulated beneath a piece of loose roofing membrane. Droppings were collected for DNA analysis.	Confirmed Bat Roost (**Roost 3**) Medium Suitability

Reference	Photos	Description	Assessment
Building 19	 East elevation  Roof void	No significant or notable features. No evidence of roosting bats.	Medium Suitability

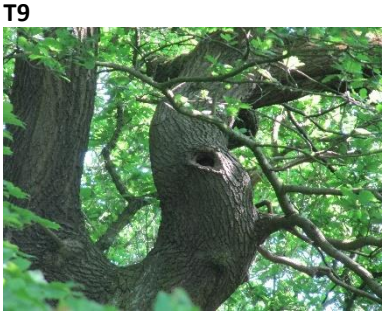
Reference	Photos	Description	Assessment
Building 20	 West elevation  South elevation  Central section of roof void  Roost evidence (droppings)  Roost evidence (droppings)	Approximately 200 bat droppings have accumulated on an area of fibreglass insulation at the east of the building at the base of an internal dividing wall and beneath an area of adjacent loose roofing membrane. Further individual droppings are scattered down to dividing wall. Droppings are approximately 0.6 – 1cm in size are a mixture of relatively fresh and older and degrading. Droppings were collected for DNA analysis.	Confirmed Bat Roost (**Roost 4**) Medium Suitability

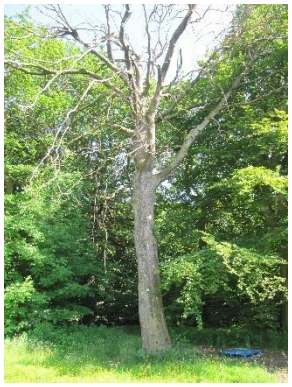
Reference	Photos	Description	Assessment
Building 21	 Southern elevation  Western roof void  Central roof void	One of the original Storthes Hall buildings from 1904. It is now used as the admin block with offices across the first floor, and reception, a shop and further office areas on the ground floor. The two-storey building is constructed from sandstone brickwork with a tiled pitched roof, with parapet walls at the gable ends, and chimney stacks. The building and roof are in good condition and there are no obvious favourable features such as gaps, crevices or areas of damage which may provide access to bats, however localised areas associated with lead flashing around the chimney stacks, and gaps at the wall tops may provide access to bats. Internally the roof space is divided into three roof voids, in north, central and southern sections, with brick and mortar dividing walls present. The spaces are approximately 2.5m in height at the centre, with timber rafters, purlins, ridge beams and supports, and exposed timber boarding with no roofing membrane. Each of the voids is well-lit at the eastern end by windows which reduces the suitability of the voids for roosting bats, however gaps associated with the internal brickwork dividing walls and the timber roof frame provide potential for crevice-dwelling species. No evidence of roosting bats detected.	Medium Suitability
Building 22	 Eastern elevation	A small single-storey gatehouse building at the eastern end of the site, which is now used as a maintenance block. Externally the building is well-maintained and in good condition, with no favourable features or access for bats noted, however localised gaps suitable for access by bats are present at the edges of roof tiles. No access was possible to the internal areas of the building, however the roof space supports rooms, not undisturbed roof voids like the other buildings.	Medium Suitability

Appendix C - Preliminary Tree Assessment Results

Reference	Description	Assessment
T1  (T75 in the Enzygo Arboricultural Survey Report)	Semi-mature Horse Chestnut. North face of the main stem has split and peeling bark giving potential access to individual or low numbers of bats.	Low Suitability
T2  (T50B in the Enzygo Arboricultural Survey Report)	Semi-mature Horse Chestnut. An approximately 10x10cm knot-hole is present approximately 4m high on the north face of the main stem which may lead into a cavity. The hole is cluttered by surrounding twigs and leaves restricting an open flight path for bats and reducing the suitability of the feature. Other low-quality areas of deadwood and lifted bark are present.	Low Suitability
T3  (Part of G43 in the Enzygo Arboricultural Survey Report)	Mature Sycamore. Tree supports a dead 2nd stem, which has a woodpecker hole approximately 10m high on the south face and further gaps and cracks as a result of the dead wood.	Moderate Suitability
T4  (Part of W5 in the Enzygo Arboricultural Survey Report)	A very large mature Beech. Has no obvious high value features for roosting bats, however a split in the west face of the main stem from 3 to 4m high may lead into a cavity, and the tree is of a size and age where other low-quality localised features cannot be discounted.	Low Suitability

Reference	Description	Assessment
T5  (Part of W5 in the Enzygo Arboricultural Survey Report)	A second very large mature Beech. Has no obvious high value features for roosting bats, however the tree is of a size and age where low-quality localised features cannot be discounted.	Low Suitability
T6  (Part of W5 in the Enzygo Arboricultural Survey Report)	A mature Sessile Oak. On the north face of the main stem is a split in the bark exposing deadwood, with limited associated gaps and cracks. No obvious high-quality features were noted.	Low Suitability
T7  (Part of W5 in the Enzygo Arboricultural Survey Report)	A mature Sessile Oak. Approximately 10m high on the north face is an 8x8xcm knot-hole leading into a cavity with an entrance which has been smoothed (likely by woodpecker). Provides a single high-quality feature	Moderate Suitability
T8  (Part of W5 in the Enzygo Arboricultural Survey Report)	A very mature Beech. Supports a dead broken branch approximately 12m high on the north side of the tree which may provide limited gaps and cracks for access by individual roosting bats. No obvious high-quality features were noted.	Low Suitability

Reference	Description	Assessment
T9  (Part of W5 in the Enzygo Arboricultural Survey Report)	Mature Sessile Oak. Supports a knot-hole approximately 12m high on a side branch on the north face of the tree. May lead into a cavity which could not be viewed from ground level.	Moderate Suitability
T10  (Part of W5 in the Enzygo Arboricultural Survey Report)	Mature Sessile Oak. Approximately 8m high on the north face is a 5x5cm knothole which appears to lead to a cavity and has black staining beneath. Tree is of a size and age where other low-quality localised features cannot be discounted	Moderate Suitability
T11  (T226 in the Enzygo Arboricultural Survey Report)	A mature Pedunculate Oak. Approximately 10m high on the south face of the main stem is a large smoothed 10x10cm knot hole which appears to lead in to a cavity. Provides single high-quality feature.	Moderate Suitability
T12  (T225 in the Enzygo Arboricultural Survey Report)	A mature Pedunculate Oak. Approximately 12m high no the east face of the main stem is a smoothed knot-hole which appears to lead in to a cavity. Provides single high-quality feature.	Moderate Suitability

Reference	Description	Assessment
T13  (T223 in the Enzygo Arboricultural Survey Report)	A dead Beech tree. No obvious features but deadwood may provide cracks and gaps for individual roosting bats.	Low Suitability
T14  (T220 in the Enzygo Arboricultural Survey Report)	A mature Pedunculate Oak. Supports a single dead branch approximately 10m high on the south face of the tree. No obvious good features, but deadwood may permit individual roosting bats.	Low Suitability
T15  (T199 in the Enzygo Arboricultural Survey Report)	A mature Ash. No obvious good roosting features, but the tree supports a dense cover of ivy which may obscure features from view, or provide poor quality roosting habitat in itself.	Low Suitability

Reference	Description	Assessment
T16  (T208 in the Enzygo Arboricultural Survey Report)	A mature Beech. No obvious good features, but flaking bark may provide poor-quality opportunities for individual roosting bats	Low Suitability
All other trees	No PRFs detected	Negligible Suitability

Appendix D - Legislation and National Planning Policy

Wildlife legislation and policy relevant (or potentially relevant pending further survey) to the proposed works, based on the findings of the desk study and field survey are set out below. This legal information is a summary only, and the original legal documents should be consulted for definitive information.

Legislation Protection Afforded to Sites/Habitats that could Potentially be Affected by the Proposed Works

Designated Site/Habitat	Legal Status
None	-

Legislation Protection Afforded to Species that could Potentially be Affected by the Proposed Works

Species	Legal Status
European Protected	
Bats	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: • Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; • Deliberately disturb such an animal; • Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.
Nationally Protected	
Bats	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Badger	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also make it illegal to intentionally or recklessly

Species	Legal Status
	interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive.
Nesting Birds (general)	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Wild Mammals	The Wild Mammals (Protection) Act 1996 makes it illegal to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
Invasive Species	
Invasive Flora (e.g. Rhododendron)	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act.

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI), of which there are 56 habitats and 943 species. The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

National Planning Policy

The NPPF (2023) set out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development.

The NPPF states that:

'Planning policies and decisions should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate

Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

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

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

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

- potential Special Protection Areas and possible Special Areas of Conservation;

- potential Special Protection Areas and possible Special Areas of Conservation; and

- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

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.'

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