

Preliminary Ecological Appraisal



Trinity Academy Car Park, Barnsley

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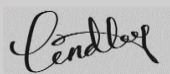
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The information which ADAS has prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Ltd.

Revision History

ADAS Ref (Revision number)	Date	Amendment
01	24/03/2023	INITIAL REPORT
02	24/04/2023	Biological records and site boundary update
03	26/05/2023	REPORT UPDATE

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Summary

ADAS was commissioned by Sean Kitchingman to conduct a preliminary ecological appraisal (PEA) of approximately 0.193ha of land located to the east of Trinity Academy St Edward's, Barnsley, S70 2EX (Grid reference: SE 34568 06635 & SE 34489 06659).

The school wishes to extend their current facility with the provision of a temporary modular building and school yard providing additional teaching spaces for the students. It is understood that the building and fencing required will be in place for approximately one year after which it will be removed and returned to its original use for offroad parking. The proposed new building and fencing that will be surrounding the new yard area will affect the existing ecology of the site and as such a PEA survey is required to fully understand the impacts of the proposed development. Works are anticipated to take place sometime before September 2023.

The site is situated within the urban city centre of Barnsley, comprised mainly of hardstanding ground with small areas of soft landscaping containing semi-mature and mature planted trees. The site is currently used as an active car park with full public access. There is a line of broadleaved semi-mature trees located along the western boundary (car park A), these trees are to be removed in order to extend the schools facilities. However, once the temporary structure has been removed from the site it has been proposed that the trees will be replaced like for like.

A small line of semi-mature and scattered trees located to the north of the site (car park B) within a grassy verge are to be retained during the works with potential minor pruning of overhead branches to facilitate the installation of Paladin fencing around the proposed new school.

As the trees on site are semi-mature and mature, they offer potential for nesting birds. Therefore, the removal or pruning of branches within these trees should be undertaken outside of breeding bird season (March to August inclusive). However, should the works be required within the breeding bird season, it is recommended that a check for nesting birds is undertaken by a suitably experienced surveyor prior (within 48 hours) to works commencing. If active nests are found during any phase of works, a suitable work exclusion zone (usually 5 m) should be installed and maintained until the young have fledged.

No further ecological constraints were observed during the PEA survey.

Summary of Further Survey or Actions

The table below provides information on further surveys, mitigation measures and enhancement measures to be undertaken on site.

Survey/Action	Rationale	When
Safeguarding nesting birds: Clearance of trees outside of breeding season (March – August) or nesting bird checks.	Trees within the site boundary to be removed and/or branches pruned have potential to support nesting birds.	Pre-works; (nesting bird check within 48 hours before any vegetation clearance).
Sensitive lighting design for construction and operation lighting to avoid illuminating trees.	To mitigate the limited potential that bats may use the retained / planted trees on site for commuting and foraging, construction works should refrain from taking place between the hours of dusk and dawn to further limit impacts. If this is not possible, a sensitive lighting scheme should be devised to reduce light spill on sensitive features.	During / post construction.
Replace any lost trees with native tree species	To ensure there is no biodiversity loss within the site as a consequence of the temporary proposed development.	Decommission Phase
Installation of three bird boxes	To mitigate for lost nesting habitat during the temporary development and act as enhancement on site once the trees have been replanted.	Post Construction
Soft landscaping to increase the green space and biodiversity of the site.	Soft landscaping is encouraged to increase the greenspace on site, planting should be incorporated using native species to ensure that foraging opportunities are not lost.	During construction.

1 Introduction

1.1 Background and Survey Objectives

ADAS was commissioned by Sean Kitchingman of Silcock Leedham Consulting Engineers Ltd to undertake a preliminary ecological appraisal (PEA) of the areas of land surrounding the east and south of Trinity Academy St Edward's, Barnsley, S70 2EX (Grid reference: SE 34568 06635 & SE 34489 06659) and hereafter referred to as 'the site', which is to be used to support a planning application for the development of a new modular building providing an additional teaching space and yard area for the school.

The aim of the preliminary ecological appraisal is to identify ecological constraints to the proposed works and make recommendations for mitigation or opportunities for enhancement that can be incorporated into the design. The preliminary ecological appraisal also makes recommendations for further surveys, as required.

The report has been prepared in accordance with guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM 2017) and the British Standard 42020:2013.

The objectives of this report are:

- *To identify designated nature conservation sites within the vicinity of the site;*
- *To identify any records and/or populations of protected, notable or scarce species in the vicinity of the site;*
- *To record habitats or features of ecological interest within or in immediate proximity to the site;*
- *To record the presence of, or potential for, protected or notable species;*
- *To make an ecological assessment and highlight potential ecological constraints;*
- *To outline any further survey work and potential protected species requirements if relevant; and*
- *To make suggestions for avoidance, mitigation compensation and enhancements in line with planning policies where appropriate.*

1.2 Site Description

The site was situated within the urban city centre of Barnsley, S70 2EX and was approximately 0.193 hectares in size, the majority of which was comprised of hardstanding ground, buildings and a small area of soft landscaping along the sites. These include several individual semi-mature and mature trees. The trees on site consisted predominantly of Common Whitebeam (*Sorbus aria*) with occasional mature species of Rowan (*Sorbus aucuparia*), Sycamore (*Acer Pseudoplatanus*), Silver Birch (*Betula pendula*) and Scots Pine (*Pinus sylvestris*). The site is currently used as an active car parking spaces with public access.

The wider landscape is dominated by industrial estates and residential dwellings with numerous public outdoor areas including the Dearne Valley Park, approximately 1 km north of the works, and the Locke Park approximately 1.4 km south.



Figure 1. Location of the Trinity Academy's car park A (red line boundary) car park B (orange line boundary), Schools current building (blue line boundary) and wider landscape.

Imagery taken from Bing Aerial. March 2023.

1.3 Description of the Proposed Development

Under the current proposal, the land currently used as two separate car parking areas located to the east of the site (Red outline/carpark A) which is to be turned into a new modular building providing an additional teaching space for the school and a car park area to the north of the college (Orange outline/car park B) is to become a new school yard for the students surrounded by new Paladin fencing to match the current fencing surrounding the college grounds.

It is currently understood that the proposed development will be confined to existing hardstanding ground. Seven trees located within car park A's boundary between the car park and school are to be removed to provide space for the new building development. It is understood these will be replaced once the temporary building is removed and the space is converted back into a public parking area.

The grass verge (0.025ha) surrounding car park B's site boundaries include a small line of three trees and five individual scattered trees within close proximity to site. These are to be retained during the development with possible pruning of low hanging branches if they are at risk of damage when installing the new Paladin fencing behind the kerb-line. The extension is being undertaken to accommodate the Year 9 September 2023 intake. Proposed plans can be found in Appendix 1.

2 Methods

2.1 Desk Study

A desk study was carried out to identify statutory designated sites within a 2 km radius and non-statutory designated sites of nature conservation importance, together with known records of protected and other notable species, within a 2 km radius of the proposed development.

Multi-Agency Geographic Information for the Countryside (MAGIC) was used to derive information relating to the location of statutory designated sites and priority habitats.

Barnsley Biological Records Centre (BBRC) provided details of non-statutory designated sites of nature conservation importance and records of protected and other notable species.

It is important to note that most species are greatly under-recorded and therefore a lack of records for a location should not be taken as an absence of the species concerned. Furthermore, a record for a particular habitat or species does not necessarily confirm its current presence.

2.2 Field Survey

The first habitat survey was conducted on the 24th of March 2023 with the survey concentrating on survey area A and the second was conducted on the 18th of May 2023 and extended to the site to area B and of the original school building. These were both surveyed by ADAS Ecological Consultant Holly Lindley BSc (Hons) based on the method described in The UK Habitat Classification (UKHab) User Manual (Butcher *et al.*, 2020), with plant species recorded following standard nomenclature (Stace 2019).

UKHab is based on a hierarchical primary habitat system with associated habitat codes. The primary habitat codes are followed by secondary codes. Secondary codes are designed to give information on the environment, management and origin of habitats, to identify habitat mosaics and complexes and identify specific features within primary habitats.

The habitat survey was extended to include notes on fauna and habitats which could potentially support protected species. The presence of, or potential for, protected species was noted on the field map during the survey.

2.3 Assessment and Evaluation

The importance of identified ecological features was assessed and defined in a geographical context (see Appendix 2). The frame of reference for the habitat features in terms of their geographical importance is in line with guidance set out in CIEEM, 2018. Where there is perceived to be negligible risk of impact, the feature is evaluated as having negligible importance.

Species and the potential for habitats to support them are assessed, where appropriate, against best practice guidelines.

As part of the evaluation further surveys may be recommended based on the suitability of habitats to support protected species, the habitats themselves and potential impacts posed by the proposed development and the legal protection afforded to both habitats and species.

2.4 Zone of Influence

The assessment conducted for this report has considered the area in which ecological features could be subject to significant effects from the proposed development. The area of the potential effects is often wider than the actual perimeter of the development site and is known as the Zone of Influence.

The Zone of Influence varies for different impacts and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development.

Designated sites for nature conservation within the wider area must be considered, as activities on the site may have implications for these specially protected areas, for example, through disturbance or pollution. If any designated sites are within proximity to the site, then it is important their notification features, such as rare or protected species/habitat, are safeguarded from damage or disturbance.

2.5 Mitigation Hierarchy

The main aim of the preliminary ecological appraisal is to inform the client of the potential impacts on ecological features and what next steps are needed to manage these. In order to achieve this aim, the mitigation hierarchy should be adopted so that the following applies:

- **Avoidance** - *Ecological features of importance should be avoided in the first instance through the design process by either designing around them, alternative design or even an alternative location.*
- **Mitigation** – *Adverse impacts that cannot be avoided should be adequately mitigated for to minimise negative impacts on the ecological features. Mitigation measures can either be implemented during the design process or construction phase.*
- **Compensation** – *This should only be used in exceptional circumstances or as a last resort, after all options for avoidance and mitigation have been fully considered. Compensation therefore can be applied to any residual impacts that cannot be avoided or mitigated.*
- **Enhancements** - *Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.*

2.6 Limitations

The survey was undertaken in good weather conditions, within optimal growing season. No limitations.

3 Baseline Ecological Conditions

3.1 Desk Study

MAGIC found one statutory designated site (e.g. LNR, SSSI, SPA, SAC or Ramsar) within 2 km of the site. Information on non-statutory designated sites and protected / notable species have been requested from Barnsley Biological Records Centre (BBRC) for a 2 km radius. See Table 2 below for further details.

Table 2: Statutory and non-statutory designated sites within 2 km of the survey site

Site Name	Description	Designations	Distance and direction from site
Statutory Designated Sites			
Dearne Valley Country Park	An urban local nature reserve 49.34 hectares of mixed broad leaved and deciduous woodland extending for two miles along the River Dearne from Hoyle Mill to Lundwood.	LNR	1.50 km E.
Non-statutory Designated Sites			
Old Mill Lane	The Old Mill is approximately 10.27 hectares in size and is located on the River Dearne, where it flows in a south-easterly direction just to the northeast of Barnsley Town Centre. Within proximity to the mill, the watercourse is tree-lined, both upstream and downstream of the A61 bridge, with broadleaved woodlands and plantations outside the site boundaries downstream. North-west of the site opens out into a much more rural landscape with the southeast banks being dominated by scrub/woodland with mixed deciduous tree species with areas of neutral grassland with scattered trees and scrub located between the large waterbody and the river.	LWS	950m N.E

Site Name	Description	Designations	Distance and direction from site
Cliff Wood	Dearne Valley Park is a Local Nature Reserve which includes Cliff Wood, as it lies within the park. Cliff Wood approximately 32.27 hectares and consists of broadleaved woodland dominated by oak and birch, with smaller amounts of other native species with diverse mixed plantations and an area of wet willow-dominated woodland. Areas surrounding the woodland include areas of open neutral grassland and scrub, with small bodies of standing and associated swamp habitats.	LWS	1.60km E.
Barnsley Canal at Wilthorpe	The Barnsley Canal at Wilthorpe is a local wildlife site (LWS) with 33.36 hectares of land. The majority canal is now surrounded by swampland and semi-improved neutral grassland, with a variety of habitats found within the grassland and areas of standing water. Three areas of standing water remain in the section of the canal. The largest parcel of land is in the west of the site, south of the canal. At the western end of this area lies unimproved neutral grassland. The River Dearne runs to the north of the site and an active railway line lies to the south, with a mix of arable and pastoral farmland comprising the majority of the wider area.	LWS	2 km N.

Table 3 presents the results of the biological records search.

Table 3: Records of selected protected or notable species within 2 km of the site

Species	Designation	Date	Distance from site	Approx. location
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	CMS_A2,HabReg-Sch2, WACA-Sch5_sect9.1(kill/injuring), WACA-Sch5_sect9.4b, WACA-Sch5_sect9.5a, WACA-Sch5Sect 9.4c	2017	379 m W.	Land west of Wakefield Road - Dearne Valley Country Park
Daubenton's Bat (<i>Myotis daubentoni</i>)	WACA-Sch5_sect9.1(kill/injuring), WACA-Sch5_sect9.4b, WACA-Sch5_sect9.5a, WACA-Sch5Sect 9.4c	2013	950 m N.E	River Dearne, Old Mill Lane

Species	Designation	Date	Distance from site	Approx. location
Noctule Bat (<i>Nyctalus noctula</i>)	BAP,CMS_A2,HabReg-Sch2, WACA-Sch5_sect9.1(kill/injuring), WACA-Sch5_sect9.4b, WACA-Sch5_sect9.5a, WACA-Sch5Sect 9.4c	2017	1.80 km N.	Land west of Wakefield Road - Dearne Valley Country Park
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	BAP,CMS_A2,HabReg-Sch2, WACA-Sch5_sect9.1(kill/injuring), WACA-Sch5_sect9.4b, WACA-Sch5_sect9.5a, WACA-Sch5Sect 9.4c	2017	1.90 km N	Land west of Wakefield Road - Dearne Valley Country Park
Brown Long-eared Bat (<i>Plecotus auritus</i>)	BAP,CMS_A2,HabReg-Sch2,WACA-Sch5_sect9.1(kill/injuring), WACA-Sch5_sect9.4b, WACA-Sch5_sect9.5a, WACA-Sch5Sect 9.4c	2017	1.90 km N	Land west of Wakefield Road - Dearne Valley Country Park

BAP = Biodiversity Action Plan – Barnsley

CMS_A2 = Convention on Migratory Species - Appendices 1 and 2

HabReg-Sch2 = the Conservation of Habitats and Species Regulation 2017 – Schedule 2

WACA = The Wildlife and Countryside Act 1981 (Schedule 5)

3.2 Field Survey

The habitats identified during the habitat survey are listed and described below. All habitats are marked on the habitat map in Appendix 3 and each habitat type is illustrated with a photograph in Appendix 4.

On site:

- *Line of trees – w1g6 11 73*
- *Developed Land; Sealed surface - u1b 11 73*
- *Modified grassland - g4 11*

3.2.1 Habitats

3.2.1.1 Line of trees – w1g6 73

There are a total of 15 individual trees present on site, consisting of mostly of semi-mature Common Whitebeam with occasional mature species of Rowan, Sycamore, Silver Birch and Scots Pine. These trees make up two separate lines of trees, one in the eastern carpark and another in the north-western carpark. The line of trees in the eastern carpark are to be removed to facilitate the new building, whilst all other trees are to be fully retained, however due to their proximity to proposed fencing they may be impacted by works.

The line of trees to be removed was located along the western boundary of the eastern carpark and consisted of seven semi-mature trees (ca. 20 m in length). All seven trees were situated within small plots of bare ground separated with hardstanding gaps for public footpaths/cycle paths. A single stump was present to the east of car park and had previously been felled. It is understood that these trees will be replaced when the temporary building is removed from the site. *Please see Appendix 3 & 4 for reference.*

3.2.1.2 *Developed Land; Sealed surface u1b 11 73*

The majority of the site consisted of hardstanding ground (carpark A & B). The hardstanding areas were comprised of tarmac with some block paved parking areas, and curbs around the main paths, all of which were devoid of vegetation. The sealed surface also included an area of compacted stone footpath surrounding the site. Along the eastern boundary of the site, there were small areas of bare ground containing an isolated semi-mature Rowan (*Sorbus aucuparia*) tree which will be retained during the works. It is understood that the road, walkways and separate tree located to the east and south of the site will be retained whilst the carpark and paved areas located to the north and west (between the carparks and school) will be lost. The total area of hardstanding on site is approximately 0.46 ha.

Located towards the south of the site was the Trinity academy St Edwards building. This was a large modern T shaped red-brick building, four-storeys high measuring approximately 0.086 ha in area, with a flat roof with wooden fascia and eaves were situated around the roof. The building was surrounded and secured by metal Paladin fencing with areas of hardstanding ground (approx. 0.127ha) currently used as the school's yard area. The buildings walls, roof and windows of the main building were in reasonably good condition with no obvious large cracks or holes. This building is to be maintained and will not be impacted with the proposed development.

Please see Appendix 3 & 4 for reference.

3.2.1.3 *Modified grassland g4 11*

An area of modified grassland/grass verge was located towards the north of the site and surrounded the rear and west side of car park B. An additional area included three semi-mature Common whitebeam trees (ca. 15 m in length) situated within a small stretch of grass verge was located along the north-east side of the second carpark (B). Five additional mature species of Rowan, Sycamore, Silver Birch and Scots Pine trees were located on the far side of the corresponding car park within the grass verge (ca. 35 m in length). These are approximately 5 m+ away from the kerb line of the works and are not anticipated to be affected by the installation of Paladin fencing. At the time of this report, it is understood that these trees are to be retained and will only be pruned if necessary to allow the installation of fencing within the grass verge behind the kerb-line. *Please see Appendix 3 & 4 for reference.*

3.2.2 Species

3.2.2.1 Birds

The trees identified within the site boundaries of the site have the potential to support foraging and nesting habitat for a number of common bird species.

Although BBRC found no records of nesting birds and no nests were observed within the site area during the field survey, numerous Blackbird (*Turdus merula*), Jackdaw (*Corvus monedula*) and Wood Pigeon (*Columba palumbus*) were observed in the area.

3.2.2.2 Bats

BBRC found records of five species of bats within 2 km of the site. These include Common Pipistrelle, Daubenton's Bat, Noctule Bat, Soprano Pipistrelle and Brown Long eared Bat. The closest of which was of a commuting Common Pipistrelle recorded within 337 m north of the site within the Dearne Valley Country Park. The closest known recorded roost within 950 m was located at Old Mill Lane and has been known to support an important maternity roost of Daubenton's bat since 1990. Other species were recorded within 2 km north of the works.

None of the trees identified within the carpark surveyed areas (red/orange area) had any features that would provide suitable habitat to support roosting bats and of which only seven are to be removed and then replaced like for like once the temporary modular building is removed. The other trees mentioned in this report are to be retained and unaffected by the development.

The school's main building located to the south of the site (blue area) had no external features that would provide suitable habitat to support roosting bats. However, at the time of the survey ADAS was unable to access the interior roof space to access possible features with potential to support roosting bats.

Buildings located off site and within the surrounding area had numerous suitable features to support bats including missing tiles, lifted fascia boards, gaps in the bargeboards and soffit and missing mortar. However, these buildings adjacent the site are understood to be retained, with no such features or evidence of bats (individuals, droppings, or feeding remains) being found on site.

3.2.2.3 Badgers

BBRC found no records of European Badger (*Meles meles*) within 2 km of the site. No signs/evidence of Badgers (digging, snuffle holes, latrines, setts, mammal paths) were observed on site during the PEA

The site and surrounding area had no suitable or connecting habitat to support setts, foraging or commuting Badgers. Therefore, no impact to Badgers is considered likely as a result of the proposed works.

3.2.2.4 Otters and Water Voles

BBRC found no records of Eurasian Otter (*Lutra lutra*) or European Water Vole (*Arvicola amphibius*) within 2 km of the site. The site provided no suitable habitat to support Otter or Water Vole, therefore no impact to Otter or Water Vole is considered likely as a result of the proposed works.

3.2.2.5 Other mammal species

There is no suitable habitat on site for small mammals such as Hedgehog (*Erinaceus europaeus*), Harvest Mouse (*Micromys minutus*) or Brown Hare (*Lepus europaeus*). No mammals were observed on site during the PEA. BBRC presented no records of Hedgehog, Harvest Mouse, or Brown Hare within 2 km of the site.

3.2.2.6 Reptiles

No reptiles were observed during the time of survey. The site provided no suitable habitat to support species of reptiles, therefore no impact to reptiles is considered likely as a result of the proposed works. BBRC found no records of reptile species within 2 km of the site.

3.2.2.7 Amphibians

No amphibians were observed during the time of survey. The site provided no suitable habitat to support species of amphibians, with no waterbodies within 250 m of the site boundary. Therefore, no impact to amphibians is considered likely as a result of the proposed works. BBRC found no records of amphibian species within 2 km of the site.

3.2.2.8 Invertebrates

No invertebrates were observed during the time of survey, though the survey was undertaken during winter, when most invertebrates are dormant. The large stump on site could provide suitable habitat to support common invertebrate species. However, due to the highly urbanised location of the site and limited suitable habitat present, it is unlikely to support key assemblages of invertebrates. BBRC found no records of notable invertebrate species within 2 km of the site.

3.2.2.9 White-clawed Crayfish

The site provided no suitable habitat to support White-clawed crayfish (*Austropotamobius pallipes*).

3.2.2.10 Non-native invasive plants

No evidence of invasive species was recorded during the site walkover.

4 Planning Policy and Legislation

4.1 Local Planning Policy

Table 4 details the policies within the Barnsley Local Plan which are relevant to the ecological features on site.

Table 4: Summary of relevant local planning policy – Barnsley Local Plan (January 2019)

Policy	Description
Policy GI1 Green Infrastructure	We will protect, maintain, enhance and create an integrated network of connected and multi-functional Green Infrastructure assets that: - Provides attractive environments where people want to live, work, learn, play, visit and invest; - Meets the environmental, social and economic needs of communities across the borough and the wider City Regions; - Enhances the quality of life for present and future residents and visitors; - Helps to meet the challenge of climate change; - Enhances biodiversity and landscape character; - Improves opportunities for recreation and tourism; Respects local distinctiveness and historical and cultural heritage; - Maximises potential economic and social benefits; and Secures and improves linkages between green and blue spaces; At a strategic level Barnsley's Green Infrastructure network includes the following corridors which are shown on the Green Infrastructure Diagram: River Dearne Valley Corridor. - River Dove Valley Corridor. - River Don Valley Corridor. - Dearne Valley Green Heart Corridor. - Historic Landscape Corridor. The network of Green Infrastructure will be secured by protecting open space, creating new open spaces as part of new development, and by using developer contributions to create and improve Green Infrastructure. We have produced a Green Infrastructure Strategy for Barnsley which is informed by the Leeds City Region and South Yorkshire Green Infrastructure Strategies.
Policy GS1 Green Space	We will work with partners to improve existing green space to meet the standards in our Green Space Strategy. Green Spaces are green open areas which are valuable for amenity, recreation, wildlife or biodiversity and include types such as village greens, local open spaces, country parks, formal gardens, cemeteries, allotments, woodlands, recreation grounds, sports pitches and parks. Proposals that result in the loss of green space, or land that was last used as green space, will not normally be allowed unless: An assessment shows that there is too much of that particular type of green space in the area which it serves and its loss would not affect the existing and potential green space needs of the borough; or

Policy	Description
	▪ The proposal is for small scale facilities needed to support or improve the proper function of the green space; or ▪ An appropriate replacement green space of equivalent or improved quality, quantity and accessibility is provided which would outweigh the loss. In order to improve the quantity, quality and value of green space provision we will require qualifying new residential developments to provide or contribute towards green space in line with the standards set out in the Green Space Strategy and in accordance with the requirements of the Infrastructure and Planning Obligations Policy. The Supplementary Planning Document 'Open Space Provision on New Housing Developments' offers guidance to developers on what will be expected in terms of open space provision in order to achieve those standards. Where there is a requirement to provide new green space an assessment will be carried out to determine the most appropriate provision, taking into account site characteristics and constraints. In cases where it is deemed unsuitable to make provision for open space within or adjacent to a development site, suitable off-site open space facilities may be acceptable either as new facilities or improvements to those existing. Where appropriate new green space should secure access to adjacent areas of countryside.
Policy BIO1 Biodiversity and Geodiversity	Local Plan Objective 5: Achieve net gains in biodiversity Development will be expected to conserve and enhance the biodiversity and geological features of the borough by: Protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified via Section 41 of the Natural Environment & Rural Communities Act 2006 (for list of the species and habitats of principal importance) and in the Barnsley Biodiversity Action Plan. ▪ Maximising biodiversity and geodiversity opportunities in and around new developments. ▪ Conserving and enhancing the form, local character and distinctiveness of the boroughs natural assets such as the river corridors of the Don, the Dearne and Dove as natural floodplains and important strategic wildlife corridors. ▪ Proposals will be expected to have followed the national mitigation hierarchy (avoid, mitigate, compensate) which is used to evaluate the impacts of a development on biodiversity interest. ▪ Protecting ancient and veteran trees where identified. ▪ Encouraging provision of biodiversity enhancements. Development which may harm a biodiversity or geological feature or habitat, including ancient woodland and aged or veteran trees found outside ancient woodland, will not be permitted unless effective mitigation and/or compensatory measures can be ensured. Development which adversely effects a European Site will not be permitted unless there is no alternative option and there are imperative reasons of overriding public interest (IROPI).

Policy	Description
Policy CC1 Climate Change	We will seek to reduce the causes of and adapt to the future impacts of climate change by: ▪ Giving preference to development of previously developed land in sustainable locations; Promoting the reduction of greenhouse gas emissions through sustainable design and construction techniques; ▪ Locating and designing development to reduce the risk of flooding; Promoting the use of Sustainable Drainage Systems (SuDS); ▪ Promoting and supporting the delivery of renewable and low carbon energy; and ▪ Promoting investment in Green Infrastructure to promote and encourage biodiversity gain.
Policy CC2 Sustainable Design and Construction	Development will be expected to minimise resource and energy consumption through the inclusion of sustainable design and construction features, where this is technically feasible and viable. All non-residential development will be expected, to achieve a minimum standard of BREEAM 'Very Good' (or any future national equivalent). This should be supported by preliminary assessments at planning application stage.

4.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) July 2021, is an update to the previous version issued in February 2019, and is a policy framework document which provide a range of important principles. Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural local environment by:

'Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

Paragraph 175 goes on to state:

'... 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.'

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles (paragraph 180):

'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.'

4.3 Relevant Legislation

4.3.1 National Legislation

4.3.1.1 *The Environment Act 2021*

Paragraph 2 (3) of Schedule 14 of The Environment Act 2021 makes it mandatory for all new developments (with some limited exceptions) to achieve a biodiversity net gain (BNG) of at least 10% by the time the development is completed compared to the pre-development biodiversity value of the onsite habitat. This percentage may be amended in the future by the Secretary of State. Please note that some Local Policies stipulate a higher target than this.

The Act allows three methods for securing biodiversity net gains:

1. enhancement of the biodiversity of land to which the planning permission relates;
2. the allocation of registered offsite biodiversity gain to any development for which the planning permission is granted; and
3. the purchase of biodiversity credits for any such development.

A biodiversity gain statement must set out whether, and if so how, the biodiversity gain objective applies in relation to development where the onsite habitat is irreplaceable, how the development will minimise any adverse effects to the onsite habitat, and what evidence must be produced to show how the biodiversity net gain has been met upon completion of the development.

Biodiversity gains will need to be maintained for at least 30 years after the development is completed.

4.3.1.2 *The Wildlife and Countryside Act 1981*

The Wildlife and Countryside Act 1981 (as amended) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain.

4.3.1.3 *Natural Environment & Rural Communities Act 2006*

Section 40 of the NERC Act 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions. Section 41 lists habitats and species of principal importance to the conservation of biodiversity. Fifty-six habitats and 943 species of Principal Importance for Conservation are included on the Section 41 list and draws upon the UK BAP List of Priority Species and Habitats.

4.3.1.4 *The Conservation of Habitats and Species Regulations 2017 (as amended)*

The Conservation of Habitats and Species Regulations 2017 (as amended) transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive),

into national law and transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of a national site network including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), the protection of 'European protected species', and the adaptation of planning and other controls for the protection of other sites, such as Ramsars.

4.3.2 Species Specific Legislation

4.3.2.1 Bats

Bats are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Under the Wildlife and Countryside Act 1981 it is illegal to:

- *Kill or injure bats;*
- *Cause disturbance at their resting places; or*
- *To block access to, damage or destroy their roost sites.*

Under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 it is an offence to:

- *Deliberately capture or kill a bat;*
- *To damage or destroy a breeding site or resting place of any bat. (This is an absolute offence and intent or recklessness does not have to be proved); and*
- *Deliberately disturb a bat (this applies anywhere, not just at its roost).*

4.3.2.2 Birds

Breeding wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Under the Wildlife and Countryside Act, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds however are not included in this definition (except for limited parts of the Act). They are covered by the Game Acts, which fully protect them during the close season.

All birds, their nests and eggs are protected and it is thus an offence, with certain exceptions to:

- *intentionally kill, injure or take any wild bird;*
- *intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;*
- *intentionally take or destroy the egg of any wild bird;*
- *have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;*

- *have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *use traps or similar items to kill, injure or take wild birds; and*
- *have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations.*

Additionally for some species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young.

5 Evaluation of Ecological Features/Further Survey

Table 5 below provides an evaluation of the ecological features, identifying which are of sufficient importance to be taken forward. Any ecological feature that is identified as negligible importance will not be considered further, where there is insufficient evidence further surveys will be recommended to be able to assess the ecological importance of that feature in relation to the site and the proposed development. In some instances, a level of site importance has been identified for features which have a very localised scale.

Table 5: Evaluation of ecological features

Ecological Feature	Justification	Level of Importance
Statutory Designated and non-statutory Designated Sites	Due to the small scale of the development and disconnection between the site and any sites of ecological importance the works will not infringe on any these areas. As the result of this no impacts from the development are likely to occur.	Negligible importance
Line of trees	A line of seven trees were present on the east of the site boundaries. These trees are the only flora within the site boundaries.	Site importance
Scattered trees	A total of eight individual semi and mature trees were located within the site's boundaries. These consisted of mostly semi-mature Common whitebeam and mature species of Rowan, Sycamore maple, Silver birch and Scots pine. All scattered trees were located to the north of the site, situated within small areas of grass verge.	Site importance
Grass verge	This was a small area of modified grassland located towards the north of the sites' orange surveyed area. Area was mowed at the time of the survey and provided little to no floral diversity.	Site importance
Developed Land; sealed surface	Hardstanding with minimal to no flora, considered to have negligible ecological value.	Negligible importance
Nesting birds	The trees identified onsite provided nesting and foraging opportunities for common bird species.	Site importance
Bats	The trees identified on site have limited potential to provide foraging and commuting habitat for bats.	Site importance
Badger	No evidence of badgers was observed during the PEA survey. The site has no potential habitat to support commuting, foraging badgers.	Negligible importance
Water vole	No evidence of water vole or potential habitat to support commuting, foraging water vole were observed during the PEA survey.	Negligible importance

Ecological Feature	Justification	Level of Importance
Other mammals	No evidence/ signs of other mammals were observed during the PEA survey.	Negligible importance
Reptiles	No evidence of reptiles was observed during the PEA survey. The site has no potential habitat to support commuting, and foraging reptiles.	Negligible importance
Amphibians	The site contained no habitat suitable to support breeding, commuting or foraging amphibians, with no waterbodies within 250 m of the site.	Negligible importance
Invertebrates	The site has potential to support small numbers or solitary common invertebrate species, such as solitary bees within holes of trees/stumps. However, the site contains no other flora/ habitat to support larger or rarer invertebrate assemblages.	Negligible importance
White- clawed crayfish	The site has no potential habitat to support white- clawed crayfish	Negligible importance
Non-native invasive species (INNS)	No invasive species were identified onsite during the PEA survey.	Negligible importance

6 Ecological Constraints, Opportunities and Recommendations

6.1 Habitats

6.1.1 Line of trees & Scattered trees

A line of seven trees located between car park A and the school where the new temporary modular will be placed will require removal to facilitate the development. These are to be replaced to a similar standard (age, size, and species) of the original trees once the modular building is removed from the site.

A small area of three trees were located within an area of grass verge along the northeast boundary of car park B area which will be retained during the insulation of new Paladin fencing to match the current fencing surrounding the college grounds and will become a new school yard for the students. Five additional scattered mature species of Rowan, Sycamore, Silver Birch and Scots Pine trees were located on the far side of the corresponding car park within the grass verge. These are approximately 5m+ away from the kerb line of the works and are not anticipated to be affected by the installation of Paladin fencing. These trees may need slight pruning of low hanging branches to prevent any accidental damage to the trees during installation of the fencing.

Root protection measures should be identified whilst working near the retained trees adjacent the site, including not working within the prohibited zone (1 m from the trunk of the tree), excavation works or pruning of branches taking place within the precautionary zone (four times the circumference of the tree) should kept to a minimum to prevent damaging/killing the tree and must be carried out using hand tools and not storing or place materials within these zones. Removed trees should be replaced on a two for one basis.

6.2 Species and Species Groups

6.2.1 Birds

The lines of trees and scattered trees boarding the west of carpark A and B provided foraging and nesting opportunities for common bird species. It is anticipated that the line of trees located along car park A's boundaries are to be temporarily lost to development and scattered trees located along the north-east of car park B will be retained with potential branch pruning when installing fencing.

Although no nests were observed at the time of the PEA survey, any vegetation removal around the site should be undertaken outside of breeding bird season (March to August inclusive). However, should these works be required within the breeding bird season it is recommended that a check for nesting birds is undertaken by a suitably experienced surveyor prior (within 48 hours) to works commencing. If a nest (or nest in construction) is found during this nesting bird check, a suitable stand-off area should be maintained until the young have fledged, usually 5m.

Three bird boxes should be installed on trees on retained trees or those within close proximity to those removed/adjacent to the site. These should mitigate for the temporary loss of trees and enhance the site once the trees are reinstated, in line with the local plan. Bird boxes should be located three metres above the ground where possible.

6.2.2 Bats

The small lines and scattered trees located along the boundaries of the site have potential to provide limited commuting and foraging opportunities for bats. Although, the line of trees to be removed does not form a link to other suitable foraging / commuting habitats, therefore would not cause any fragmentation of suitable habitats, should bats be present in the area. All scattered trees within site boundaries are to be retained through the development process and unaffected by works. No other features suitable for roosting bats were identified on any of the trees on site.

To mitigate the low potential that bats may use the retained trees on site for roosting, commuting and foraging, works should refrain from taking place between the hours of dusk and dawn. If this is not possible, a sensitive lighting scheme should be devised to reduce light spill on sensitive features (tree line).

It is recommended that any new lighting follows the protocols outlined in the Institute for Lighting Professionals Guidance note 08/18 “Bats and Artificial Lighting in the UK” (2018) to minimise disturbance, light spill and sky-glow across the site and particularly towards the retained trees adjacent the site. By installing lighting during the construction phase, the lighting level and directionality can be controlled to ensure that lighting remains appropriate and sensitive.

6.3 Other Enhancement Opportunities

Additional considerations and biodiversity enhancements could include:

- Soft landscaping is encouraged to increase the greenspace on site, planting should be incorporated using native species to ensure that foraging opportunities are not lost. Planting schemes should use a range of native flora, including fruit/seed/nut bearing species and those that provide pollen and/or nectar (such as *Corylus sp.*, *Sambucus sp.*, *Prunus sp.*, *Malus sp.*, *Sorbus sp.*, *Viburnum sp.*, etc.) this will also increase foraging opportunities for invertebrates, bats and birds.
- Additional locally occurring plants could be added to the site, such as the naturalised plant Red Valerian (*Centranthus ruber*) to encourage more butterflies, and night-scented plants such as Jasmine (*Cestrum nocturnum*). Additional native bee-friendly plants could also be incorporated within the site.

7 Conclusions

It is proposed that Trinity Academy will be extending their current facility's and will involve the removal of two public car parking areas located directly adjacent to east and north (carpark A & B) of the school where the construction of a new building to provide a temporary additional teaching space will be installed, and the installation of new Paladin fencing to match the current fencing surrounding the college grounds and will become a new school yard for the students. See appendix 1 for further details.

The PEA identified that the site was comprised mostly of habitats of negligible ecological importance, largely hardstanding ground, with lines of semi and mature trees on site providing potential for nesting / foraging birds and foraging / roosting and commuting bats, these trees were deemed to have site value. No evidence of bats (individuals, droppings, or feeding remains) or nesting birds were observed during PEA surveys.

Any vegetation removal including the trees or pruning of trees within the proximate area should be undertaken outside of breeding bird season (March to August inclusive). However, should these works change or are required within the breeding bird season it is recommended that a check for breeding birds is undertaken by a suitably experienced surveyor prior (within 48 hours) to works commencing. If nests are found during any phase of works a nesting bird check will be required to provide a suitable exclusion which should be maintained until the young have fledged.

Any adjacent trees should be protected from additional light spills during and after construction to preserve their suitability for use by nesting birds and commuting/foraging bats.

Recommendations have been made to ensure that the development complies with the District Local Plan in regard to Policy CC1 (Climate Change) and GIBIO1 (Biodiversity and Geodiversity) enhancing and promoting the site's biodiversity post-development. This includes the enhancement of the site with native planting of fruit / seed-bearing species.

8 References

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *The UK Habitat Classification User Manual Version 1.1* at <http://www.ukhab.org/>

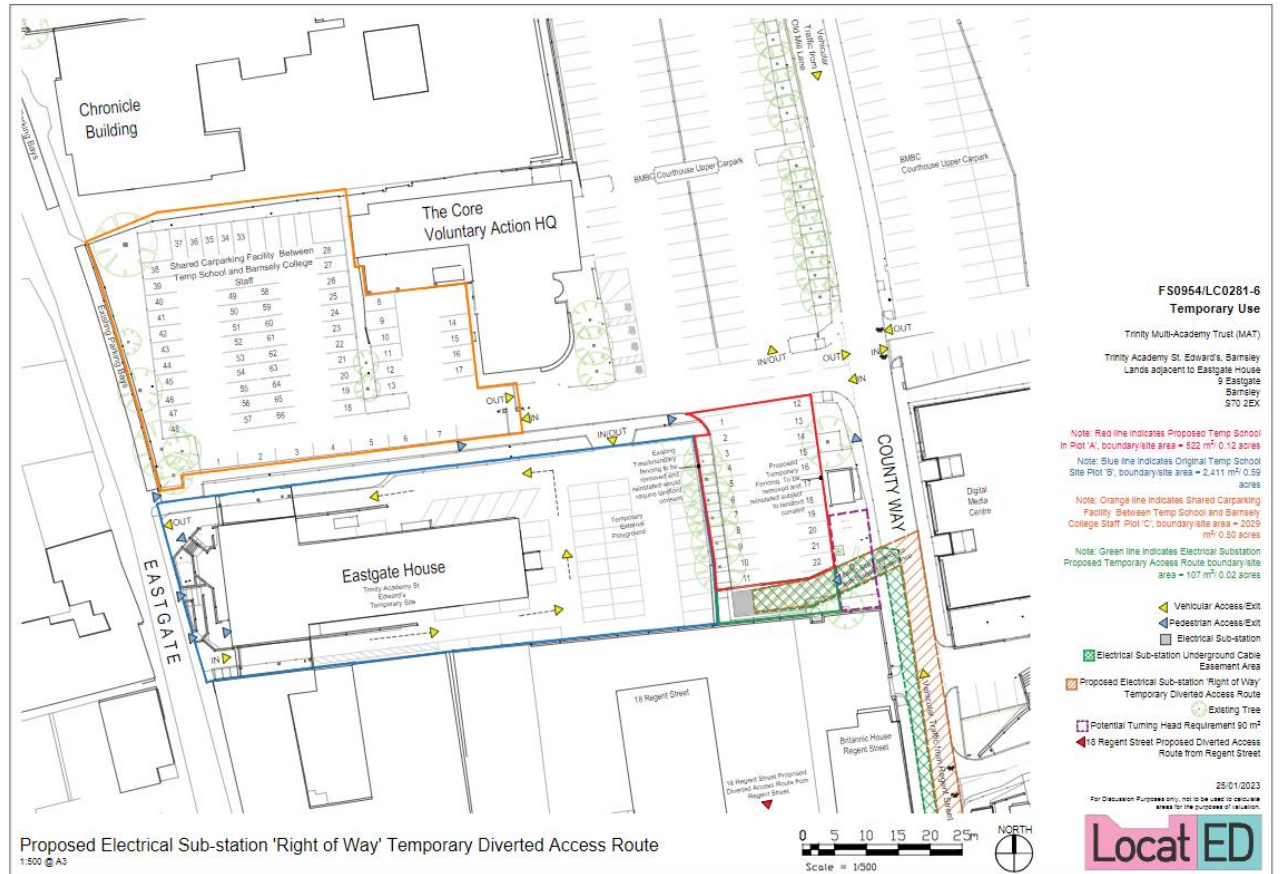
Chartered Institute of Ecology and Environmental Management (2017). *Guidelines for Ecological Preliminary Ecological Appraisal. Technical Guidance Series.* www.cieem.net

Chartered Institute of Ecology and Environmental Management (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.* Technical Guidance Series www.cieem.net

Stace, C. (2019). *New British Flora of the British Isles.* 4th Edition. Cambridge University Press.

Appendix 1: Proposed Plans

See following page.



Appendix 2: Frame of Reference for Geographical Context

Geographical context	Examples
International and European	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species. Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP. A regularly occurring, nationally significant population/number of any internationally important species.
National	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan. Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP). A regularly occurring, regionally or county significant population/number of any nationally important species.
Regional	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceed SINC criteria, but not exceeding SSSI criteria. Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; A regularly occurring, locally significant number of a regionally important species.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas. Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation; A regularly occurring, locally significant number of a County/Metropolitan important species.
Local	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough or within a zone of influence. A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation; A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.

Appendix 3: Habitat Map



Key:

-  Developed Land - Sealed Surface
-  Line of Trees
-  Scattered Trees
-  Site boundary
-  Buildings

Appendix 4: Photographs



Photograph 1: Image of the line of Common whitebeam trees to be removed for purpose of the works. Image taken to the west of the sites boundaries.



Photograph 2: Previously felled mature tree. Stump to be retained during works.



Photograph 3: Image of two Rowan trees located to the east of the site boundary. Trees are to be retained during works.



Photograph 4: Image of the site area and entrance to car park A area including Rowan.



Photograph 5: Image of site area and access to car park B.



Photograph 6: Image of stone wall located to the north of the site's boundary covered with Ivy. This wall is to be retained and unaffected by works.



Photograph 7: Image taken facing west to the rear of Trinity Academy including hardstanding ground and Paladin fencing.



Photograph 8: Image of scattered semi and mature Sycamore maple, Silver birch and Scots pine trees located to the north of the site boundary. Trees are to be retained and possible pruned during works.



Photograph 9: Image of three Common whitebeam trees and grass verge located to the north-east of the site boundary. Trees are to be retained and possible pruned during works.