
Hologic, Crewe Road, Wythenshawe

Ecological Appraisal Report

Compiled by Ecology Services Ltd.

on behalf of

JDA Architects

May 2020



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Executive Summary

Ecology Services Limited was commissioned by JDA Architects in May 2020, to carry out an ecological appraisal at Hologic, Crewe Road, Wythenshawe, M23 9HZ, hereinafter referred to as 'the site'. The site is proposed for construction of a new warehouse with associated car parking and landscaping.

The site is located within The Oaks Business Park to the south west of Manchester, north west of Wythenshawe and west of Wythenshawe Park Local Nature Reserve (LNR), between the B5167 Wythenshawe Road to the north west and Crewe Road to the south. The site predominantly comprises amenity grassland and hard standing with peripheral hedgerows and some recently planted, scattered trees. The site lies. To the east the site borders broadleaved woodland containing three ponds used for fishing.

No direct/ indirect impacts are anticipated on the Wythenshawe Park LNR and component Nan Nook Wood Site of Biological Importance (SBI) due to the distance from the development site.

No direct impacts are anticipated on the adjacent Habitats of Principal Importance and Greater Manchester BAP habitats of lowland mixed deciduous woodland / native woodland and ponds, however appropriate pollution prevention measures will need to be implemented to minimise the risk of indirect impacts.

The site contains a Habitat of Principal Importance, hedgerows and Greater Manchester BAP habitats, native hedgerows and urban managed greenspace. The qualifying hedgerows will be retained with planting of further species-rich hedgerows within the proposed development. Development of the site also raises the opportunity to create a more diverse area of urban managed greenspace of greater value to biodiversity although reduced in area. Works in close proximity to hedgerows and trees will need to have regard to appropriate root protection zones.

While no confirmed evidence of badger was identified during the survey, a pre-commencement survey of the adjacent woodland is recommended to establish whether any badger setts could be affected by the proposed works and advise of any necessary mitigation. A sensitive lighting strategy is also recommended to protect adjacent habitats from light pollution. Any removal of nesting bird habitat must be undertaken outside the nesting bird season or following a check by a suitably qualified ecologist to confirm nesting birds are absent. Loss of nesting bird habitat will be compensated by new planting within the proposed development.

Recommendations are included for further enhancements which could be implemented to ensure a net gain for biodiversity.

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1.0 Introduction

- 1.1 Ecology Services Limited was commissioned by JDA Architects in May 2020, to carry out an ecological appraisal at Hologic, Crewe Road, Wythenshawe, M23 9HZ, hereinafter referred to as 'the site'. The centre of the site is located by National Grid Reference (NGR) 380214, 389947. The location of the site is shown on Figure 1.
- 1.2 The report has been produced to identify the baseline ecological conditions of the site and of wildlife habitat bordering the site and identify any potential constraints to the development proposals. Where habitats and / or species are significantly affected, the report assesses the impacts and makes further recommendations. The site is proposed for construction of a new warehouse with associated car parking and landscaping as shown on Figure 2.

Site Description and Context

- 1.3 The site is located within The Oaks Business Park to the south west of Manchester, north west of Wythenshawe and west of Wythenshawe Park and Gardens. The site predominantly comprises amenity grassland and hard standing with peripheral hedgerows and some recently planted, scattered trees. The site lies between the B5167 Wythenshawe Road to the north west and Crewe Road to the south. To the east the site borders broadleaved woodland containing three ponds used for fishing.
- 1.4 To conduct an ecological appraisal at the site, the aims of the survey were to:
- Undertake a desktop study up to 1km from the site including a review of existing maps and aerial photographs of the area up to 250m from the development site;
 - Undertake an extended Phase 1 habitat survey of the development site and up to 30m from the development site; and
 - Identify any further detailed survey requirements.
- 1.5 The site's ecological values will be assessed in context with current UK planning and legislative policy, including:
- Statutory protected species
 - Species/Habitat of Principal Importance
 - Local Biodiversity Action Plan (BAP) habitat/species
 - Statutory protected sites
 - Non-statutory protected sites or species of conservation concern
- 1.6 The purpose of this report is to state the survey methodology, present the results of the survey, evaluate the findings, assess the impacts and make recommendations concerning the protection of existing ecological features within and bordering the development plot.
- 1.7 Further surveys will be recommended, where required. If further surveys are recommended, then this report should be read in conjunction with any recommended survey reports.

2.0 Planning Policy and Legislation

Planning Policy

- 2.1 The National Planning Policy Framework (NPPF, 2019) places a clear responsibility on Local Planning Authorities (LPA) to contribute to conserving and enhancing the natural and local environment. LPAs should promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species (e.g. Species of Principal Importance, Local Biodiversity Action Plan species); and identify and pursue

opportunities for securing measurable net gains for biodiversity. The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation.

- 2.2 A Local Planning Authority (LPA) has a duty to ensure that protected species and habitats within the UK are a 'material consideration' in the determination of a planning application. Therefore, an LPA is unlikely to determine an application until all relevant information relating to protected species or habitats is submitted to fully inform the application. Relevant information includes adequate surveys and, where required, mitigation strategies, which will need to be submitted to inform a planning application.
- 2.3 Most Local Planning Authorities have a system of sites of local importance for nature conservation which complement the series of internationally and nationally designated wildlife and geological site. These sites are usually afforded protection through the Local Plan.
- 2.4 The Sites of Biological Importance (SBI) system in Greater Manchester was established in the early 1980s and was based primarily on the Ratcliffe criteria (1977). They are non-statutory wildlife areas protected by Unitary Development Plan Policies described nationally as 'Sites of Local Biodiversity Interest', which are just below the conservation value of statutory Sites of Special Scientific Interest (SSSIs). There are approximately 526 sites on the register.
- 2.5 Although the UKBAP has been superseded by the UK Post-2010 Biodiversity Framework and, in England, Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011), many Local Authorities have prepared and operate Local Biodiversity Action Plans (LBAPs). LBAPs not only highlight habitats and species that are of Principal Importance but also habitats and species that are of local importance. LBAPs will be prepared for these habitats and species. Listing of habitat or species in a LBAP does not confer any new statutory or planning policy protection. However, impacts upon species prioritised in LBAPs may be a material consideration in a planning application.

Legislation

Statutory Designated Sites

- 2.6 Certain sites are afforded statutory protection at the European or National Level. European Designated Sites include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar Sites. Sites of Special Scientific Interest (SSSIs) are afforded national protection. For further details on these designations refer to Appendix 1.
- 2.7 Impact Risk Zones (IRZs) are a mapping tool developed by Natural England to enable developers and Local Planning Authorities (LPAs) to make an initial assessment of the potential risks to Sites of Special Scientific Interest (SSSIs) posed by development proposals. They define zones around each SSSI according to the particular sensitivities of the features for which it is notified and specify the types of development that have the potential to have adverse impacts, which may require consultation with Natural England.
- 2.8 LNRs are statutorily designated sites at the local level, designated by local authorities. The Local Plan for an area will detail any additional protection given to the LNR such as protection against damaging operations and/or protection against development within or adjacent to the LNR. For further information on LNRs refer to Appendix 1.

Protected Species

- 2.9 All British bats, great crested newts (*Triturus cristatus*), otter (*Lutra lutra*) and hazel dormouse (*Muscardinus avellanarius*) and the habitat they use for protection and shelter are protected under Conservation of Habitats and Species Regulations 2017 (as amended)¹ and the Wildlife and Countryside Act 1981 (WCA, as amended) (European protected species).
- 2.10 Water vole (*Arvicola amphibious*), crayfish (*Austropotamobius pallipes*), red squirrel (*Sciurus vulgaris*), pine marten (*Martes martes*) and common reptiles receive protection through the Wildlife and Countryside Act 1981 (as amended) (Nationally protected species). Certain plant species are similarly protected at the European or National level.
- 2.11 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Under the WCA, it is an offence to kill, injure or take any wild bird, to take damage or destroy the nest of any wild bird or to take or destroy the egg of any wild bird. Birds listed on Schedule 1 of the WCA are afforded additional protection and it is also an offence to disturb any Schedule 1 listed bird while it is building a nest, is on or near a nest containing young or disturb dependent young of such a bird.
- 2.12 Badgers (*Meles meles*) and their active setts are protected under the Protection of Badgers Act (1992). The Protection of Badgers Act 1992 was designed to protect badgers from baiting and deliberate harm or injury. It also contains restrictions that apply more widely.
- 2.13 Developments with potential to affect protected species will mostly require a licence from Natural England, which permits otherwise illegal actions.
- 2.14 For further information on protected species legislation, refer to Appendix 1.

Invasive Species

- 2.15 Schedule 9 of The Wildlife and Countryside Act 1981 (as amended) lists invasive non-native plant species that are considered to have a detrimental effect upon native flora wherever they occur. It is therefore an offence to “plant or otherwise cause them to grow in the wild”. This includes allowing the species to grow/spread, causing the species to spread or transferring polluted ground material from one area to another. Waste containing these species may be classed as controlled waste under the Environmental Protection Act (Duty of Care) Regulations 1991, which requires all producers, carriers and disposers of waste to follow a code of practice and keep records and must comply with section 34 of the Environmental Protection Act 1990.
- 2.16 Section 23 of the Infrastructure Act 2015 amended the Wildlife and Countryside Act 1981 to introduce a statutory regime of species control agreements and orders. This schedule ensures that, in appropriate circumstances, landowners take action on Schedule 9 invasive species, or permit others to enter the land and carry out those operations, to prevent their establishment and spread.
- 2.17 The EU Invasive Alien Species Regulation (1143/2014) imposes strict restrictions on a list of species known as “Species of Union Concern” and is implemented by the European Commission Implementing Regulation 2016/1141. Under the EU Regulation, it is a requirement for management measures to be put in place for widespread invasive species.

¹ As amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which continue the same provision for European protected species, licensing requirements and protected areas after Brexit.

The Invasive Alien Species (Enforcement and Permitting) Order 2019 came into effect on 1st October 2019.

- 2.18 The Regulation ensures that a landowner must act responsibly and not allow an invasive species to grow or spread outside their land, which could be an offence and/or contrary to the Regulation. Where this cannot be guaranteed the landowner is required to consider safely removing and disposing of any listed plant.

Natural Environment and Rural Communities (NERC) Act 2006

- 2.19 Section 41 (S41) of the NERC Act 2006 requires the Secretary of State, as respects England, to publish a list of the living organisms and types of habitat which are of Principal Importance for the purpose of conserving biodiversity. Section 40 of the NERC Act 2006 places a duty to conserve biodiversity on every public body. The Local Planning Authority and Natural England will expect account to be taken of these species in the overall layout and landscape strategy for the development.

3.0 Methodology

- 3.1 This Ecological Appraisal has been undertaken in accordance with CIEEM's guidelines (CIEEM, 2017a & b).

Desktop Study

- 3.2 Ecological data and historic records of protected species and sites was collated from the following sources; listed in Table 1.

Table 1: Desktop Study Resources and Record Centres Consulted

Source of information	Information supplied
Multi-Agency Geographic Information for the Countryside (https://magic.defra.gov.uk/)	To identify nature reserves, Sites of Special Scientific Interest (SSSI), Habitats of Principal Importance, non-statutory protected sites or features of interest within 1km of the site.
Natural Environment and Rural Communities (NERC) Act 2006	Review of Habitats/Species of Principal Importance known to occur in the region.
Greater Manchester Biodiversity Action Plan (LBAP)	Identification of LBAP species and habitats known to occur in the region.
Great Manchester Local Records Centre (GMLRC)	To identify locally protected sites or species of interest within 1km of the site.

- 3.3 The data search with Greater Manchester Local Records Centre (GMLRC) was undertaken on 7th May 2020.
- 3.4 The aim of the desktop study was to assist the surveyor undertaking the extended Phase 1 habitat survey by providing background information on the likely habitats and species that occur within the local area.
- 3.5 A review was undertaken using existing maps and aerial photographs of the area (up to 250m of the development site) to identify any features of ecological interest; for example, a pond that may support amphibian species such as great crested newts or common toad (*Bufo bufo*).

Extended Phase 1 Habitat Survey

- 3.6 The extended Phase 1 habitat survey was undertaken of the site and within 30m of the site where access was permitted. Habitats were assessed by using Phase 1 habitat survey

techniques, which is a system for environmental audit widely used within the environmental consultancy field.

- 3.7 The extended Phase 1 habitat survey followed Phase 1 habitat survey methodology (JNCC, 2010). This involves walking over the site, mapping and target noting any semi-natural habitats. The survey area includes the footprint of the proposed development and up to 30m from the proposed development site.
- 3.8 A habitat map will be prepared to show the locations and extent of habitats and detailed descriptions of the principal and important plant communities will be provided as Target Notes.
- 3.9 Plant species abundances were recorded within the target notes, using DAFOR ratings, as Dominant, Abundant, Frequent, Occasional or Rare (Rare in the sense of having a very low abundance). Species recorded as locally abundant are abundant only in certain parts of the target noted habitat, rather than being abundant throughout. The ratings have no precise definition and are affected by plant size and season of survey however they have been shown to correlate with more quantitative measures.
- 3.10 The extended Phase 1 habitat survey is a modified approach to the Phase 1 habitat survey, extended for use in environmental assessment (Institute of Environmental Assessment, 1995). The survey recorded any signs of protected species/Species of Principal Importance or other valuable ecological components of the site. Direct observations of the species were noted. Furthermore, sites/habitats with potential to support the species were also noted, even if direct signs of presence were not apparent. Features of note recorded during the survey are mapped (Figure 1) and marked with target notes; target note descriptions are provided in Appendix 2. Photos of habitats and features of ecological importance are provided in Appendix 3.
- 3.11 The locations of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and others were also mapped.
- 3.12 As part of the extended Phase 1 habitat survey, surveyors also recorded any wildlife observed.
- 3.13 Habitats and species identified as present or potentially present are valued with reference to statutory and non-statutory status and inclusion in Local Biodiversity Action Plans or other conservation listings such as red lists.

Timing

- 3.14 The extended Phase 1 habitat survey was undertaken on the 5th May 2020 which is an optimal time of year to undertake such a survey.

Weather Conditions

- 3.15 Weather conditions during the survey were reasonable, with no appreciable rain or wind affecting survey.

Personnel

- 3.16 All survey works were carried out by Senior Ecologist Ms L. Redgrave MA (Oxon), MSc, CEnv, CEng, MCIEEM.

Limitations

- 3.17 Surveys only provide a snapshot of habitats and species that are there at that time. Further surveys at other times of the year are likely to find additional species.
- 3.18 There was full access to the site, but there were limitations with access to the 30m wider survey area as identified on Figure 1. These limitations have been taken into account in the recommendations within this report.

4.0 Results and Evaluation

Desktop Study

Statutory Designated Sites

- 4.1 The desktop study found one locally designated statutory site within 1 km of the proposed development site:
- Wythenshawe Park Local Nature Reserve, located 0.4 km to the west of the site which supports historic and ornamental woodlands, herbaceous borders, formal bedding, amenity grassland, wildflower meadows, ponds and hedges.

Natural England Impact Risk Zones (IRZs)

- 4.2 The ecological desktop study search found the site to be within a Natural England (NE) SSSI Impact Risk Zone (IRZs) associated with Rostherne Mere SSSI, NNR and Ramsar site, which is located c. 7.7km to the south west of the site. The development proposals, however, do not fall within any of the categories requiring consultation with Natural England. Therefore, no further consideration of IRZs is given in this report.

Non-Statutory Designated Sites

- 4.3 The ecological desktop study identified one record of a non-statutory protected site within 1km of the proposed development: Nan Nook Wood Site of Biological Importance (SBI), c. 0.39km east of the survey site within Wythenshawe Park LNR.
- 4.4 There will be no direct or indirect impacts to this site as a result of the current development proposals due to its distance from the site and it is not, therefore, considered further in this report.

Habitats of Principal Importance (NERC)

- 4.5 The desktop study identified no Habitats of Principal Importance within the proposed development. Native species hedgerows are present bordering the site and lowland mixed deciduous woodland lies immediately adjacent to the east of the site.

Local Biodiversity Action Plan (LBAP)

- 4.6 Habitats listed within the Greater Manchester BAP which the site may be classified under are as follows:
- Hedgerows
 - Urban Managed Greenspace
- 4.7 The Greater Manchester BAP habitat of native woodland is present immediately adjacent to the east of the site.
- 4.8 The species of local concern which might potentially use the site, based upon information gathered from the sources listed in Table 1 are identified in Table 2 below.

Protected Species/ Species of Principal Importance (S41)/ LBAP Species

- 4.9 The desktop study identified the following records of protected species/ Species of Principal Importance within the 1km of the development site:

Table 2: Desktop Study Species Results

Common name	Scientific name	Legally protected	NERC S41	LBAP
All bat species		✓	Several species	✓
Whiskered bat	<i>Myotis mystacinus</i>	✓		✓
Noctule	<i>Nyctalus noctule</i>	✓	✓	✓
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	✓		✓
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	✓	✓	✓
Badger	<i>Meles meles</i>	✓		
Hedgehog	<i>Erinaceus europaeus</i>		✓	
Song thrush	<i>Turdus philomelos</i>		✓	*
Bullfinch	<i>Pyrrhula pyrrhula</i>		✓	*
House sparrow	<i>Passer domesticus</i>		✓	*
Dunnock	<i>Prunella modularis</i>		✓	*
Starling	<i>Sturnus vulgaris</i>		✓	*
Herring gull	<i>Larus argentatus</i>		✓	*
Curlew	<i>Numenius arquata</i>		✓	*
Tree pipit	<i>Anthus trivialis</i>		✓	*
Buff ermine	<i>Spilosoma luteum</i>		✓	
Dot moth	<i>Melanchra persicariae</i>		✓	
Green-brindled crescent	<i>Allophyes oxyacanthae</i>		✓	
Grey dagger	<i>Acronicta psi</i>		✓	
Small phoenix	<i>Ecliptopera silaceata</i>		✓	

*Some of these species may be covered by the Farmland Birds Action Plan in the GMBAP, however there is no electronic copy of this Action Plan available on the GMBAP website.

Invasive Species

- 4.10 The ecological desktop study identified no invasive species within 1km of the proposed development.
- 4.11 Based on information gathered from the sources listed in Table 1 and the surveyor's knowledge, the following protected species were taken into account when the site assessment was carried out:

- Amphibians
- Badger
- Bats (all species)
- Birds (all species)
- Reptiles (all species)
- Hedgehog
- Invertebrates

Extended Phase 1 Habitat Survey

- 4.12 An extended Phase 1 habitat survey of the site was undertaken during May 2020. Descriptions of the principal habitats are provided below and are illustrated on Figure 1. In brief the site contained the following habitats.
- 4.13 The footprint of the development site, which also includes all habitats affected by the development works, consists of:

- Scattered trees
- Amenity grassland
- Boundaries (hedgerows/fencing and walls)
- Bare ground

4.14 The wider survey area, which includes habitats within 30m of the development site and features of ecological interest located up to 250m from the development site, contains:

- Woodland broadleaved (semi-natural/plantation)
- Scrub (dense/continuous or scattered)
- Standing water
- Amenity grassland
- Introduced shrub
- Boundaries (hedgerows/fencing and walls)
- Buildings
- Bare ground

4.15 Descriptions of the principal habitats types that are to be impacted by the development found within the extended Phase 1 habitat survey are reviewed within the following sections. This also covers the potential for protected species and species of conservation concern to be supported by the habitats present. Features of ecological interest located within the wider survey area that may be affected by the development works are also described. Features separated from the site that are unaffected by the development have been omitted.

4.16 Target notes have been provided for all semi-natural habitats that are deemed either ecologically important or have the potential to support protected species/Species of Principal Importance; see Appendix 1: Extended Phase 1 Habitat Survey Target Notes.

Woodland Broadleaved Semi-Natural

4.17 Semi-natural broadleaved woodland is present within the wider survey area to the north east of the survey site (TN4) with a canopy dominated by pedunculate oak (*Quercus robur*) with some semi-mature ash (*Fraxinus excelsior*) trees and rare birch (*Betula* sp.). The understorey is sparse with holly (*Ilex aquifolium*) and dog rose (*Rosa canina*) and the ground flora dominated by bramble (*Rubus fruticosus* agg.).

4.18 Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 identifies six types of woodland as Habitats of Principal Importance. Included amongst these are lowland mixed deciduous woodland, upland oak woodland, upland mixed ash-woods and wet woodland.

4.19 The woodland that lies adjacent to the site is listed as a Habitat of Principal Importance (lowland mixed deciduous woodland), and also qualifies as a Greater Manchester LBAP habitat (native woodland). The woodland therefore is considered of value at a local level.

Scrub Dense/Continuous and Scattered

4.20 Dense scrub is present to the south west of the survey site (TN5) within the wider survey area comprising hazel (*Corylus avellana*), holly, hawthorn (*Crataegus monogyna*) and sycamore (*Acer pseudoplatanus*). The ground flora was sparse with bramble (*Rubus fruticosus* agg.), Wilson's honeysuckle (*Lonicera nitida*) and herb Robert (*Geranium robertianum*). Dense scrub was also present to the north and west of the waterbody at TN8 comprising oak (*Quercus* sp.), bramble, willow (*Salix* sp.), hawthorn, ash and ornamental rose (*Rosa* sp.).

- 4.21 Dense scrub is relatively restricted in the wider survey area and is considered of value at the local level.

Scattered Trees

- 4.22 There is a line of semi-mature hornbeam (*Carpinus betulus*) trees, approximately 15m tall, in the south western corner of the site on the southern side of the steel palisade fence. Occasional other species along this boundary include hawthorn, holly and ash.
- 4.23 To the south west of the hedgerow at TN3 are 13 recently planted, scattered trees, c. 4-5m tall, comprising rowan (*Sorbus aucuparia*), fastigate pedunculate oak (*Quercus robur fastigiata*), maple (*Acer* sp.), lime (*Tilia* sp.), hawthorn and whitebeam (*Sorbus* sp.).
- 4.24 Located in an urban area, scattered trees are frequent in the wider survey area. The scattered trees are considered to be of value at the site level.

Standing Water

- 4.25 There is no standing water within the site, however there are four waterbodies within 250m.
- 4.26 The closest waterbody (TN8) lies approximately 10m to the east of the site within the area of semi-natural broadleaved woodland, c. 50m long by 30m wide. There were two floating islands on the waterbody. There was limited marginal vegetation; vegetation recorded included water lily (*Nuphar* sp.) and yellow iris (*Iris pseudacorus*) with the occasional willow scrub. The water within the pond was turbid. Two further ponds are shown on Ordnance Survey maps within the woodland. A second pond, c. 35m x 20m was visible from Crewe Road, c. 75m south east of the survey area with some marginal bulrush (*Typha* sp.) and water lily present. The site is used for fishing.
- 4.27 The fourth waterbody lies approximately 25m south of the survey area (TN9), c. 40m long and 20m wide, probably designed to take surface water run-off. The waterbody appeared to be lined and was surrounded by bulrush and the water was turbid. Water lily was also present. Dense scrub was present to the north and west comprising oak, bramble, willow, hawthorn, ash and ornamental rose. The waterbody was fenced to the east and south.
- 4.28 Standing water was found within the wider survey area within 250m of the site in the form of fishing ponds and a probable run-off pond. Ponds provide important habitats features generally increasing biodiversity.
- 4.29 Ponds generally form ecological hotspots within the countryside. In July 2008 a new UK Pond Habitat Action Plan (PondHAP) was introduced, which aimed to identify 'Priority Ponds' as part of the Million Ponds Project, led by Pond Conservation (now the Freshwater Habitats Trust). Although Habitat Action plans are no longer used as part of the Government's biodiversity protection plans, the Freshwater Habitats Trust still considers that the priorities for protecting ponds that were identified at the time are still relevant. Not all ponds will fall under the criteria and it is estimated that around 40% of all UK ponds will meet this.
- 4.30 The pond(s) located within the wider survey area meet the initial criteria set under the UK BAP and used to select Habitats and Species of Principal Importance of being either permanent/seasonal water body up to 2ha in size. To be considered further, an additional criterion has to be met, which includes the ponds supporting key species of plants and/or animals. Additional surveys of these ponds would be required to determine whether or not the ponds meet the classification of a 'Priority Pond'. Ponds and lodges are also a Greater Manchester LBAP habitat.

Amenity Grassland

- 4.31 The predominant habitat within the site is mown amenity grassland. The grass had recently been cut at the time of the survey, however the cuttings had not been removed and there was little evidence of a diversity of herbaceous species present. Species recorded included: common bent (*Agrostis capillaris*), perennial rye-grass (*Lolium perenne*), red fescue (*Festuca rubra*), Yorkshire fog (*Holcus lanatus*), creeping buttercup (*Ranunculus repens*), greater plantain (*Plantago major*), ribwort plantain (*P. lanceolata*), common mouse-ear (*Cerastium fontanum*), white clover (*Trifolium repens*), common cat's-ear (*Hypochaeris radicata*), daisy (*Bellis perennis*), dandelion (*Taraxacum officinale* agg.), lesser trefoil (*Trifolium dubium*) and springy turf-moss (*Rhytidiadelphus squarrosus*). Mouse-ear hawkweed (*Pilosella officinarum*) was rare.
- 4.32 The amenity grassland is typically species-poor and of low botanical value. Urban managed greenspace (including amenity grassland), however, is a Greater Manchester LBAP habitat as such areas can still be important reservoirs for wildlife in urban settings.

Introduced Shrub

- 4.33 There is a small area of introduced shrub in the wider survey area to the south of the site comprising St. John's-wort (*Hypericum* sp.), hazel (*Corylus avellana*), cotoneaster (*Cotoneaster* sp.), ash sapling, hebe (*Veronica* sp.), lavender (*Lavandula* sp.), rose and cherry laurel (*Prunus laurocerasus*) with a few small pine trees. Comprising largely non-native species, the introduced shrub is of limited botanical interest. The introduced shrub will not be impacted by the proposed development and is not, therefore, considered further in this report.

Hedgerows

- 4.34 The hedgerow along the north western boundary of the site (TN2) predominantly comprises garden privet (*Ligustrum ovalifolium*) and sycamore with some ash seedlings, bramble, an oak sapling and elder. There are two trees within the hedgerow; a semi-mature ash and a mature pedunculate oak tree. The ground flora associated with the hedgerow is sparse comprising common nettle (*Urtica dioica*), garlic mustard (*Alliaria petiolata*) and herb Robert. The hedgerow is c. 110m long, 4-6m high, 3m wide at the south western end narrowing to c. 1.5m at the north eastern end and lies on the north western side of a steel palisade fence. Beyond the hedgerow lies a tarmac pavement, a mown grass verge and the carriageway of Wythenshawe Road.
- 4.35 Along the north eastern boundary of the site (TN3) on the south western side of the steel palisade fence lies a section of newly planted, species-rich hedgerow, c. 40m long comprising holly, spindle (*Euonymus europaeus*), wild privet (*Ligustrum vulgare*), elder (*Sambucus nigra*), blackthorn (*Prunus spinosa*), hawthorn and guelder rose (*Viburnum opulus*). The planted whips are currently c. 35-60cm tall.
- 4.36 Along the south western boundary of the site (TN6) to the south west of the steel palisade fence lies a section of intact, species-poor hedgerow c. 18m long and 5m tall comprising rowan, hawthorn, holly and hazel.
- 4.37 To the east of TN6 along the south western boundary of the site (TN7) lies an intact, species-poor ornamental hedgerow c. 50m long comprising barberry (*Berberis* spp.), oak, cotoneaster (*Cotoneaster* spp.), rowan and Japanese quince (*Chaenomeles speciosa*).
- 4.38 The hedgerows provide or will provide habitat connectivity around the periphery of the site, connecting to the woodland to the east and the dense scrub to the south-west.

- 4.39 Hedgerows that are over 20m in length and are composed of at least 80% of one or more UK native species are classed as a Habitat of Principal Importance for their conservation value within the landscape. Although recently planted, the hedgerow at TN3 is likely to qualify as a Habitat of Principal Importance, the other hedgerows not comprising 80% or more of UK native species (sycamore being an introduced and naturalised species) or are too short.
- 4.40 Certain hedgerows are protected under the Hedgerow Regulations 1997. The majority of the hedgerows located in the development site are species-poor (fewer than four woody species per 30m), comprise non-native species or are too young and therefore are not considered to qualify as ecologically important under the Hedgerow Regulations 1997 (however could be historically important, which is outside the scope of this assessment).

Fences/Walls/Dry Ditches/Earth Banks

- 4.41 The site is bounded on all sides by steel palisade fences, with the hedgerows and line of hornbeam trees largely lying on the outside of the fences. Fences are of no ecological value and are not considered further in this report.

Buildings and Structures

- 4.42 Waterside House lies adjacent to the east of the site. The building is a single storey brick building with metal framed windows, metal soffit boxes and a pitched, corrugated metal roof. The building is discussed further below in relation to its potential to support roosting bats.

Bare Ground

- 4.43 There is an area of hardstanding where the new warehouse is proposed and tarmac surfaced service yard and car parking areas. These areas are of no ecological value and are not considered further in this report.
- 4.44 The following section evaluates habitats and their suitability to support species that are affected by the proposed development works.

Protected and Notable Plant Species

- 4.45 No plant species fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) were found on the site. No red listed/ nationally rare/ nationally scarce/ Greater Manchester LBAP species were recorded on the site.

Invasive Plant Species - Cotoneaster

- 4.46 Cotoneaster species were present within the wider survey area/ bordering the site located within the area of ornamental shrub and ornamental hedgerow (TN7). Five species of cotoneaster are included on Schedule 9. Cotoneaster species are difficult to identify, therefore a precautionary approach has been taken and it is assumed that the species present is listed on the Wildlife and Countryside Act 1981 (as amended) Schedule 9. No other invasive plant species listed under Schedule 9 were recorded during the survey.

Amphibians

- 4.47 The desktop study found no records of amphibians within 1km of the development site. There are also no records of any European Protected Species (EPS) licences for amphibians, records from GCN Class Licence returns², any positive records from Natural England's pond surveys for District Level Licensing (DLL) (2017-2019) or on <https://nbnatlas.org/> within 1km of the site. The nearest EPS licences, GCN Class Licence returns and positive ponds from

²https://naturalengland-defra.opendata.arcgis.com/datasets/2bd21192cf0a413fbce2176c0752c5a2_0?geometry=-2.427%2C53.336%2C-1.898%2C53.479

the DLL surveys are all over 4.5-5km away and the nearest commercially available records on NBN are at least 3.4km away.

- 4.48 There is no suitable habitat within the site for breeding amphibians, however there are four waterbodies within 250m of the site, three of which are within an area managed for fishing and likely to be stocked with fish which predate amphibian eggs and larvae. Two mallard (*Anas platyrhynchos*) and a grey heron (*Ardea cinerea*) were also present at the time of the survey which also predate amphibians and their larvae. The waterbody approximately 25m to the south of the site offers greater potential to breeding amphibians. The Crewe Road between the survey site and the waterbody to the south, although kerbed, has accesses into the site and dropped kerbs, is not busy and is not considered to pose a significant barrier to movement of amphibians. The site is, however, relatively isolated in a fairly densely developed, largely residential area. These ponds may be more suitable for common toad, a species that can coexist with fish.
- 4.49 The survey site generally contains low value terrestrial habitats for amphibians, predominantly comprising mown amenity grassland and surfaced bare ground. The peripheral hedgerows and adjacent broadleaved woodland, dense scrub and ornamental shrub provides potential terrestrial habitat for amphibians.
- 4.50 Great crested newts and the habitat they use for protection and shelter are protected under Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended).
- 4.51 Common toad and great crested newt are Species of Principal Importance listed under the NERC Act 2006. Great crested newt is a Greater Manchester LBAP species.

Badger

- 4.52 The desktop study found one record of a disused badger sett, approximately 0.87km west of the development site, dated 1993.
- 4.53 No signs of badger were recorded within the survey site, however two disused mammal holes of a size suitable for badger were found approximately 30m from the survey site. The development site and the wider survey area contain habitats suitable to support badger. There was also a well worn mammal path running past these two holes. No evidence to confirm frequent use by badger was found.
- 4.54 The survey site is largely surrounded by steel palisade fencing with no evidence of mammals having dug beneath it. The mown amenity grassland, hedgerows and adjacent woodland provide suitable foraging potential for badgers, however access into the site is limited.
- 4.55 Badgers and their setts are protected under the Protection of Badgers Act (1992). Sett interference includes: disturbing badgers whilst they are occupying a sett, as well as destroying a sett or obstructing it.

Bats

- 4.56 The desktop study found records of the following bat species within 1km of the development site, none of which relate to bat roosts:
- Common pipistrelle – eight records dated between 1998 and 2019.
 - Noctule – two records dated 2007.
 - Soprano pipistrelle – one record dated 2009.
 - Pipistrelle sp. – one record dated 2007.

- Whiskered bat – one record dated 2003.

- 4.57 Mature trees around the periphery of the site may provide suitable bat roost habitat. Waterside House adjacent to the proposed new warehouse may also provide some limited roosting opportunities for bats; a hole was noted in the brickwork above one of the windows which may provide access into a wall cavity although a full building inspection for bat roost potential was not undertaken.
- 4.58 Foraging habitats within the survey site are largely confined to the perimeter in the form of hedgerows, tree line and woodland edge.
- 4.59 The wider survey area contains buildings, scattered trees and woodland that are likely to provide suitable roosting opportunities for bats. Scattered trees, woodland, scrub, hedgerows and waterbodies in the wider landscape provide foraging potential for bats and it is highly likely that bats are present in the survey area.
- 4.60 All British bats and their roosts are afforded protection under the 1981 Wildlife and Countryside Act (as amended) and are listed under Annex IV of the Habitats Directive as in need of protection. Certain species of bat are Species of Principal Importance under the NERC Act 2006, including noctule bat (*Nyctalus noctula*), soprano pipistrelle bat (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auritus*). Brandt's bat, Daubenton's bat, whiskered bat, Natterer's bat, noctule bat, common pipistrelle and brown long-eared bat are Lancashire BAP species.

Breeding Birds

- 4.61 The desktop study found no records of Schedule 1 species within 1km of the development site. There were records of eight Species of Principal Importance: bullfinch, curlew, dunnoek, herring gull, house sparrow, song thrush, starling and tree pipit. Several of the records relate to Wythenshawe Park to the east of the site.
- 4.62 Birds recorded during the survey included: mallard, grey heron, great tit (*Parus major*), goldfinch (*Carduelis carduelis*), wren (*Troglodytes troglodytes*), robin (*Erithacus rubecula*) and magpie (*Pica pica*), mostly associated with the broadleaved woodland and pond adjacent to the east of the site.
- 4.63 The development site provides limited potential for breeding birds with suitable habitats (hedgerows, dense scrub, ornamental shrub and broadleaved woodland) largely confined to the perimeter of the site and wider survey area.
- 4.64 The Wildlife and Countryside Act (WCA) 1981 (as amended), states that all wild birds are protected at all times against killing or injury. Under the WCA, it is an offence to kill, injure or take any wild bird, to take damage or destroy the nest of any wild bird, or to take or destroy the egg of any wild bird.
- 4.65 Schedule 1 birds are afforded additional protection against disturbance during the breeding bird season at or near the nest. Whilst it is considered unlikely that a Schedule 1 bird species would breed within the site, options to avoid disturbance for Schedule 1 species will need implementing if a Schedule 1 species is found to be present on site during the breeding bird season.

Reptiles

- 4.66 The desktop study found no records of reptiles within 1km of the development site. Habitats within the site and wider survey area are not considered suitable to support reptile species. Reptiles are not, therefore, considered further in this report.
- 4.67 Common reptiles receive protection against killing and injuring through the Wildlife and Countryside Act 1981 (as amended). The habitats for these widespread species are not protected. Slow-worm, smooth snake, sand lizard, grass snake, adder and common lizard are Species of Principal Importance.

Hedgehog

- 4.68 The desktop study found 55 records of hedgehog (*Erinaceus europaeus*) within 1km of the development site, dated between 2013 and 2015, mostly relating to a single location approximately 0.87km to the north-east.
- 4.69 The survey site provides limited cover for hedgehogs, however residential gardens, dense scrub and broadleaved woodland in the wider survey area are suitable to support hedgehog foraging and hibernation.
- 4.70 Hedgehog is a Species of Principal Importance for the purpose of conserving biodiversity and covered under section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006. They therefore need to be taken into consideration by a public body when performing any of its functions with a view to conserving biodiversity. Hedgehog numbers in the UK suffered a 20% decline over four years (2001-2005). This is equivalent to >50% decline over 25 years. Hedgehog is also a Lancashire BAP species.

Invertebrates

- 4.71 The desk study identified records of five moth Species of Principal Importance (buff ermine, dot moth, green-brindled crescent, grey dagger and small phoenix) approximately 0.87km north-east of the development site.
- 4.72 The mown amenity grassland and hard surfaced areas within the survey site are of limited value to invertebrates. The hedgerows bordering the site have greater potential, however they are either species-poor, comprise ornamental species or are recently planted. The broadleaved woodland and waterbodies within the wider survey area are likely to support a diversity of invertebrates. No significant impacts on invertebrates are anticipated and invertebrates are not considered further in this report.

5.0 Impacts and Recommendations

- 5.1 The National Planning Policy Framework (NPPF) (2019) states that if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity. This section, therefore, makes recommendations to avoid ecological impacts, mitigate and/or compensate unavoidable impacts and provide ecological enhancement.
- 5.2 S.40 of the NERC Act 2006 sets out the duty for public authorities to conserve biodiversity in England. Habitats and Species of Principal Importance for the conservation of biodiversity are identified by the Secretary of State in consultation with NE, under S.41 of the NERC Act for England. The Local Planning Authority and Government Conservation Organisations

(e.g. Natural England and the Environment Agency) will expect account to be taken of these habitats and species in the overall layout and landscape strategy for the development.

Designated Sites Impacts and Recommendations

- 5.3 There is one statutory designated site within 1km of the survey site, Wythenshawe Park LNR, located 0.4km to the west and one Site of Biological Importance, Nan Nook Wood, which lies within the LNR. Due to the distance between the survey site and these designated sites, no direct or indirect impacts are anticipated.

Habitats Impacts and Recommendations

- 5.4 The survey found the site to contain a Habitat of Principal Importance, hedgerows and Greater Manchester BAP Habitats, native hedgerows and urban managed greenspace. The Habitat of Principal Importance, lowland mixed deciduous woodland and Greater Manchester BAP habitat native woodland lies immediately adjacent to the east of the site. The existing native species hedgerows will be retained, however there will be a loss of urban managed greenspace to car parking. New mixed native species hedgerow planting is proposed along the northern and southern boundaries of the site which will help compensate the loss of the LBAP habitat urban managed greenspace. The landscape proposals also incorporate areas of herbaceous planting and there is opportunity to diversify the grassland within the site with a more varied mowing regime allowing some areas to grow longer and over time diversify. To maximise biodiversity benefit it is recommended that native species are used within the areas of herbaceous planting as far as possible or species with recognised wildlife used such as nectar-rich and berry bearing species. Further guidance can be found on various websites³. Inclusion of areas of native / wildlife friendly shrub planting would also increase habitat diversity within the site. While the area of urban managed greenspace will be reduced, it will provide a greater diversity of habitats and species which will offset the loss in area. Provision of a range of bug boxes will enhance the area for invertebrates.
- 5.5 There will be no direct impacts on the adjacent woodland, however there is potential for indirect impacts such as pollution (dust/run-off) during construction and potentially light pollution if lighting is introduced to the area. Appropriate pollution prevention measures during construction and a sensitive lighting strategy will need to be implemented to minimise any impacts on the adjacent woodland. The development proposals must also be carried out with adequate provision for root protection of adjacent trees to prevent compaction in accordance with BS 5837:2012 Trees in relation to design, demolition and construction. Should any works be required to adjacent trees overhanging the survey site, the tree preservation officer should be contacted to check whether any trees are protected by preservation orders (TPO). Any works to trees, if required, may also need to take into account protected and priority species prior to works. Please refer to the relevant species section prior to works.
- 5.6 Habitats within the development site and the wider survey area are considered suitable to support European and Statutory Protected Species, Species of Principal Importance and Local BAP species.
- 5.7 The following sections briefly considers each habitat that is impacted by, or adjacent to the site that may be impacted by the proposed development and provides advice upon each habitat of ecological value and the species it is considered suitable to support.

³ <https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/plants-for-wildlife/>
<https://wildlifegardenproject.com/>
<http://www.wlgf.org/>
<https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators>

Woodland Broadleaved Semi-natural

- 5.8 There will be no direct impact on the broadleaved woodland adjacent to the site, however there is potential for indirect impacts and appropriate measures will need to be implemented to minimise impacts as discussed above.

Scrub Dense/Continuous and Scattered

- 5.9 The areas of dense scrub lie outside the survey site and will be retained. Dense scrub should be protected from indirect impacts including pollution from dust/run-off during construction and light pollution as described under lowland mixed deciduous woodland Habitat of Principal Importance/ native woodland LBAP habitat above.
- 5.10 Any works within scrub habitat may need to take into account protected and priority species prior to works. Please refer to the relevant species section prior to works.

Scattered Trees

- 5.11 The line of hornbeam trees at TN1 and the recently planted scattered trees near TN3 will be retained. These trees will require adequate provision for root protection prior to any works and works in proximity to these trees must be carried out according to BS 5837:2012 Trees in relation to design, demolition and construction.
- 5.12 Further trees will be planted as part of the landscape scheme. Where possible, tree species should be native and of local provenance or of known wildlife benefit e.g. nectar or berry bearing species.
- 5.13 Consideration for tree dwelling species such as breeding birds and roosting bats may also need to be taken into consideration if trees are impacted by the proposed development.

Standing Water

- 5.14 There will be no direct impacts to standing water, however there are works proposed in close proximity to the standing water within the woodland to the east of the site. When working close to water bodies appropriate pollution prevention measures must be implemented, prior to any works to ensure their protection.
- 5.15 All pollution prevention guidance, known as PPGs, previously maintained by the Environment Agency have been withdrawn from use, however, this guidance still provides useful information on pollution prevention when working within or near the water bodies, dependant on the development proposed.

Amenity Grassland

- 5.16 Amenity grassland falls under the Greater Manchester BAP habitat of urban managed greenspace. There will be a loss of amenity grassland to the proposed development. The planting of new mixed native species hedgerow, another Greater Manchester BAP and diversification of the urban managed greenspace as discussed above will compensate this loss.
- 5.17 Any works within grassland habitat may need to take into account protected and priority species prior to works. Please refer to the relevant species section prior to works.

Hedgerows

- 5.18 The hedgerows within the site, both native and non-native, will be largely retained. There will be loss of a small section of the hedgerow along the north western boundary to facilitate a new site access. The mature pedunculate oak tree and semi-mature ash tree associated with this hedgerow will also be retained. It is recommended that the hedgerows within the site are

retained and protected during construction. Any works near to hedgerows and their associated trees should be carried out with adequate provision for root protection.

- 5.19 Planting of additional mixed native species hedgerow along the northern and southern boundaries of the site is proposed which will more than compensate the loss of species-poor hedgerow comprising non-native garden privet and sycamore and provide ecological enhancement.
- 5.20 Works in or affecting hedgerows may need to take into account the Hedgerow Regulations 1997 and protected and priority species prior to works. Please refer to the relevant species section prior to works.

Invasive Plant Species - Cotoneaster

- 5.21 No impacts are anticipated on the area of introduced shrub or ornamental hedgerow containing cotoneaster. Should works impact on these habitats, however, any cotoneaster removed should be chipped on site and used as mulching around vegetated areas. This should only be undertaken when the plant is not fruiting, as this can otherwise aid dispersal.

Species Impacts and Recommendations

- 5.22 An assessment of the potential for the site to support protected species or species of conservation interest was undertaken as part of the extended Phase 1 habitat survey. This was undertaken in order to scope the potential for protected species being present to advise the Client on potential further survey and mitigation requirements.
- 5.23 The following sections provide impacts and recommendations upon species that the development has the potential to affect. Species reviewed in Section 4 that are not affected by the proposals have been omitted.

Amphibians

- 5.24 The desk study returned no records of any amphibians within 1km of the survey site and the survey site largely comprises terrestrial habitats of no/ low value for amphibians. The three fishing ponds to the east of the site are likely to be sub-optimal for amphibians as fish (and waterfowl which were also present) predate amphibian larvae. It is considered unlikely that great crested newts will be present in these fishing ponds, taking into consideration the isolated nature of the site, and the lack of amphibian records within 1km of the site held by GMLRC or within 3km using other available resources (see paragraph 4.47). The ponds may be suitable to support common toad, however, a species that can exist with the presence of fish. If amphibians are present in the nearby waterbodies, risks to amphibians would include entrapment in excavations or through seeking shelter amongst stored materials on site.
- 5.25 As both terrestrial and aquatic habitats are present within the wider survey area to support common toad which is a Species of Principal Importance, as a precautionary measure all construction contractors should be made aware of the potential presence of amphibians on site and the potential risks to them. Should any common amphibians be encountered, they should be moved to suitable cover away from development works. If large numbers of common toad are found, then the acting consultant should be contacted for further advice on measures to minimise impacts. In the unlikely event that a great crested newt is discovered on site, at any time during the development works, all works must cease immediately and either Natural England or the acting ecologist should be contacted for advice.

Badger

- 5.26 The two mammal holes identified during the survey were approximately 30m from the survey site and therefore, unlikely to be affected by the proposed development. A guideline distance

of 30m from any active sett provides an indication of the potential for disturbance to badgers. They were also considered to be disused at the time of survey with much debris in the entrances to the holes. No other mammal holes/ badger setts or any other signs of badger were found within the proposed development site or the surrounding 30m boundary.

- 5.27 There are limited suitable habitats within the proposed development area suitable for sett building, the site largely comprising level, mown amenity grassland and hardstanding / roads. The adjacent woodland to the east of the site and dense scrub area to the south west offer the greatest potential. The site is also largely surrounded by steel palisade fencing limiting access to the site and with no evidence of any animals having dug beneath it. There remains the possibility that there could be an active badger sett further south within the dense scrub, beyond 30m of the site boundary and that badgers could forage within the site, although there was no obvious evidence to indicate the latter. The nearest development works to the area of scrub habitat is approximately 25m so it is considered unlikely that there would be any impact on badger setts, if present, within the dense scrub to the south of the site. There was no access to the woodland to the east of the site to check for badger setts, although the area could be viewed through the site fencing and there were no obvious signs of badger setts within close proximity to the site. The majority of the works in close proximity to the woodland edge include creation of a cycle stand area and surfaced path which are considered unlikely to be disturbing to badger setts if present in the adjacent woodland. Creation of the car parking bays and access road would require greater excavation and a pre-development survey for badgers within 30m of those works is therefore recommended.
- 5.28 As best practice any development must be mindful of the potential for badgers at all times. If a badger/s is/are or a badger sett/s is/are identified or suspected during the works then all works must cease and the ecologist notified for advice.
- 5.29 As a general recommendation, implementation of the following best practice mitigation measures in relation to badgers and development are advised:
- No pits/trenches to be left overnight without means of escape such as a sloped end to the trench/ rough plank;
 - No works to be undertaken during the hours between dusk and dawn;
 - No overnight lighting to be used;
 - No wet concrete to be left uncovered overnight; and
 - A tidy work area to be maintained and equipment to be stored suitably overnight, including ensuring that hazardous substances are secured.

Bats

- 5.30 No direct impacts are anticipated to buildings or mature trees that could directly impact bat roosting habitat. A new warehouse is due to be constructed in close proximity to the existing Waterside House, where a hole in the brickwork was observed offering potential access to a wall cavity. This location is, however, close to an existing service yard and it is anticipated that any bats, if present, would be accustomed to the levels of disturbance that would be present during construction of the new warehouse. Disturbance to bats (if present) during construction is not, therefore, considered to be significant. There will be a gap between the two buildings, therefore the proposed new warehouse will not obstruct access to any existing bat roosts if present. Any new lighting affecting the existing building should be kept to a minimum to minimise impacts on roosting bats, if present.
- 5.31 The client should be aware that the trees along the boundaries of the site are of a size and age that they may contain bat roost potential. Although the trees are not directly affected, the

Client will ensure that the trees are subject to appropriate tree root protection, which will provide a buffer against indirect impacts such as noise and vibration. If it is subsequently discovered that works are required to mature trees, such as pruning back overhanging branches, an inspection and assessment survey by a suitably licensed bat Ecologist should be undertaken to further check the level of roosting potential.

- 5.32 If roosting potential is of such a level or if evidence of a bat roost is found during the inspection and assessment survey or the survey is inconclusive, there will be a requirement for further activity surveys. Activity surveys can only be completed between May to August, September is sub-optimal. The level of survey required is determined by the results of the inspection and assessment, but usually surveys are spaced over the active season.
- 5.33 Further bats survey should follow the Bat Conservation Trust's bat surveys good practice guidelines (Collins, 2016) at a suitable time of year.
- 5.34 If any subsequent investigation and activity surveys find a bat roost that is impacted by tree works, a European Protected Species (EPS) development licence will be required prior to any works commencing affecting bats or their roosts, which can only be applied for once planning permission has been granted. There are timing implications in relation to implementation of bat mitigation and obtaining an EPS licence, should one be required.
- 5.35 The wider survey area contains habitats that are considered ideal for bat species including roosting and foraging habitats. Therefore, it is highly likely that bats are present within the survey area and features such as hedgerows and trees should be retained if possible. Works affecting such features should be kept to a minimum and habitats reinstated on completion of works. A gap will be made in the hedgerow on the north western boundary of the site to create a new access. This is not considered to pose a significant impact on foraging/commuting bats using this boundary due to the retention of the mature oak tree and other trees present on the opposite side of the Wythenshawe Road which should enable bats to continue to commute along this hedgerow.
- 5.36 In order to minimise potential effects of artificial lighting, a sensitive lighting scheme should be designed and implemented in accordance with ILP (2018) to maintain the site as suitable for roosting and foraging bats.
- 5.37 Lighting should be avoided wherever possible. Should lighting be required for health and safety reasons then lighting should be kept to a minimum.
- 5.38 Enhancements to habitat quality at the site should also improve foraging habitats within the site for bats, as long as a sensitive lighting scheme is adopted.

Breeding Birds

- 5.39 The development proposals include removal of a section of hedgerow and some immature scattered trees, which may be used by breeding birds.
- 5.40 If works are to be undertaken during the breeding bird season, which runs from March to August/September inclusive, then an assessment by an ecologist for breeding birds should be undertaken prior to works. If breeding birds are found, it is likely that works will have to be delayed until breeding has ceased. Ideally, all affected breeding bird habitat should be cleared outside of breeding bird season. It is good practice to replace any breeding bird habitat lost to development.

- 5.41 All replacement habitat should be made on a minimum like for like basis. The landscape scheme includes planting of new mixed species hedgerow along the northern and southern boundaries and scattered trees which will more than compensate the nesting bird habitat lost.
- 5.42 In the unlikely event that a Schedule 1 species is found to be present on site, options to avoid disturbance of that species would need to be implemented.

Hedgehog

- 5.43 While the survey site provides limited cover for hedgehogs, residential gardens, dense scrub and broadleaved woodland in the wider survey area are suitable to support hedgehog foraging and hibernation and the species may forage within the site. Hedgehog is a Species of Principal Importance and it is recommended that during development works open pits and trenches shall either be covered overnight or have means of escape i.e. ramp. The planting of new mixed native species hedgerows and herbaceous planting within the site will provide greater shelter and foraging opportunities for hedgehogs. Incorporation of hedgehog house(s) could also be considered.

Wildlife Friendly Landscape Proposals

- 5.44 It is recommended that any planting schemes within the development should adhere to the local planning policy and use native species of local provenance, wherever possible. Ornamental planting should favour species with known benefits to wildlife such as nectar rich and berry bearing species. Landscape proposals should ensure that there is no net loss of habitats of ecological value, including hedgerows, scattered trees and managed urban greenspace. There is scope to enhance existing ecological features but all loss should be replaced on a minimum like for like basis. Planting schemes should aim to meet Local BAP targets.

Enhancement Recommendations

- 5.45 In line with national planning policy new developments should ensure that there is a minimum of no net loss of biodiversity at a site and result in an overall biodiversity gain.
- 5.46 Further possible recommendations to ensure that there is an overall biodiversity gain are as follows:
- Creation of areas of species-rich grassland.
 - Installation of nesting bird boxes such as house sparrow terraces and bat boxes on existing buildings or the new warehouse (subject to its construction materials).
 - The provision of a range of bug boxes within the landscaped area.
 - Green/brown roofs.
 - Trellis on fencing and on walls for nectar rich wall climbers.
 - The use of Sustainable Urban Drainage Systems (SUDS).

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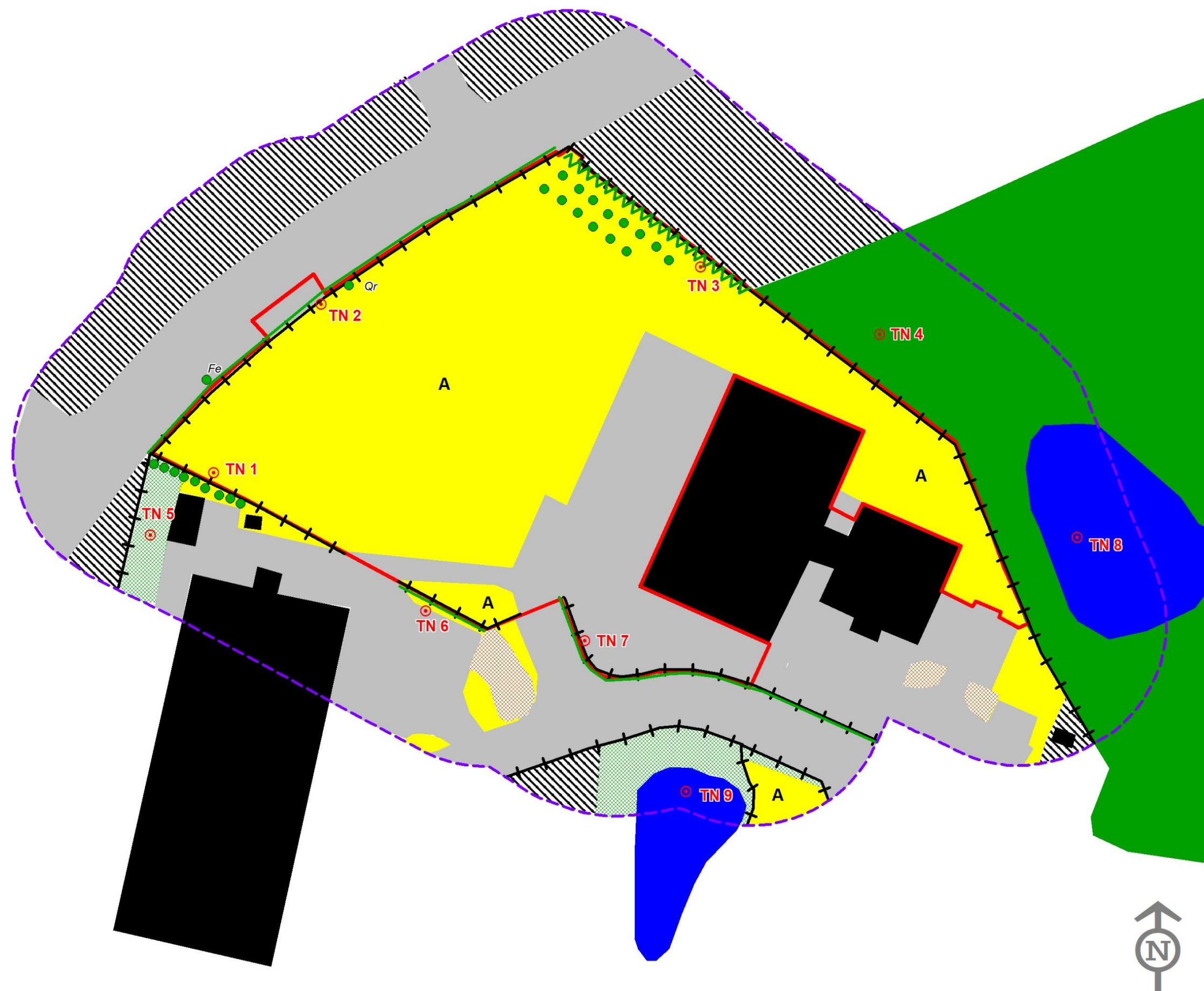
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**Figure 1:
Extended Phase 1 Habitat Survey Map**

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Extended Phase 1
Habitat Survey Map.

Map Ref: (NGR) 380234, 389937
Map Scale: 1:800 @ A3



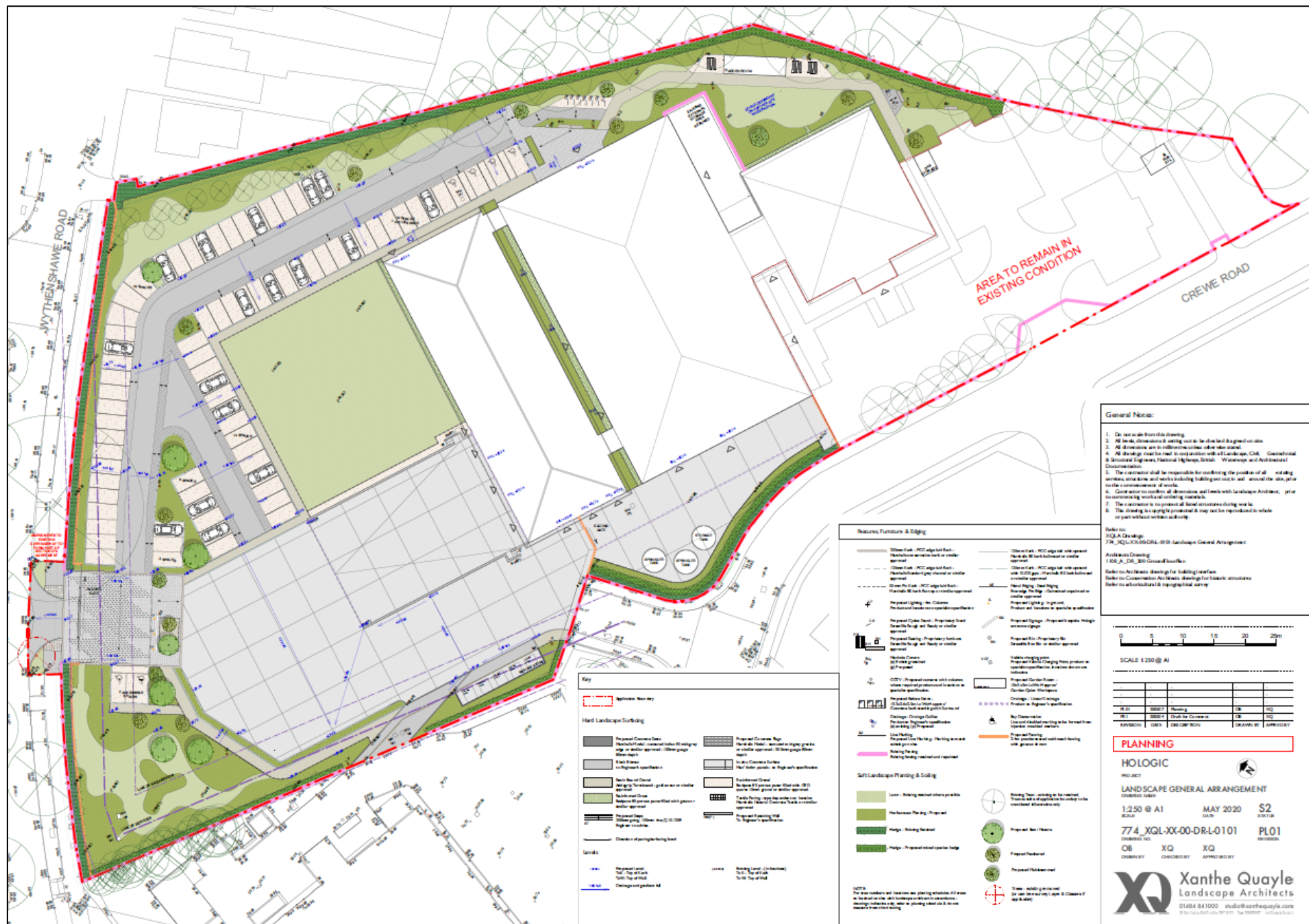
KEY

- Survey area
- 30m Survey buffer
- Semi-natural woodland (broad-leaved)
- Scattered tree (broad-leaved)
- Dense scrub
- Standing water
- Amenity grassland
- Introduced shrub
- Hedgerow (species-rich)
- Hedgerow (species-poor)
- Fence
- Building
- Road / hard standing
- No access
- Target note

Dominant Species Code:
Fe = Common ash
Qr = Pedunculate oak



**Figure 2:
Proposed Landscape Scheme**



General Notes:

1. Do not scale from this drawing.
2. All levels, dimensions & setting out to be checked against on site.
3. All dimensions are in millimetres unless otherwise stated.
4. All drawings must be read in conjunction with all Landscape, Civil, Geotechnical & Structural Engineers, National Highway, Drain, Waterways and Architects' Documentation.
5. The contractor shall be responsible for confirming the position of all existing services, structures and works including building footings and around the site, prior to the commencement of works.
6. Civil works to confirm all dimensions and levels with Landscape Architect, prior to commencing works of setting materials.
7. The contractor is to protect all listed structures during work.
8. This drawing is copyright protected & may not be reproduced in whole or part without written authority.

Table of Materials:

774_XQL-XX-00-DR-L0101: Landscape General Arrangement

Architect's Drawing

1:250 @ A1

Refer to Architects' drawing for building footprint

Refer to Conservation Architects' drawing for historic structures

Refer to archaeological & topographical survey

Scale:

1:250 @ A1

0 5 10 15 20 25m

SCALE 1:250 @ A1

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Appendix 1: Legislation

Statutory Designated Sites

Special Area of Conservation (SAC)

Special Areas of Conservation are designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). The Conservation of Habitats and Species Regulations 2017 (as amended) transpose the EC Habitats Directive into national law. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 continue the same provision for European protected species, licensing requirements and protected areas after Brexit.

Special Protection Areas (SPA)

Special Protection Areas are designated under the EC Birds Directive. The EC Birds Directive came into action in April 1979. SPAs are sites of European Importance that support both rare and vulnerable birds, that are listed under Annex 1 of the EC Birds Directive, and for regularly occurring migratory species. The Conservation of Habitats and Species Regulations 2017 (as amended) transpose elements of the EU Wild Birds Directive into law in England and Wales. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 continue the same provision for European protected species, licensing requirements and protected areas after Brexit.

Ramsar Sites

The Convention on Wetlands was formed in Ramsar, Iran in 1971 and is now termed the Ramsar Convention. The Ramsar Convention came into action in 1975. It is an international government treaty whereby all countries, that are members, have a commitment to maintain the ecological value of their designated Wetlands of International Importance. It is the only global treaty that deals with a specific ecosystem (wetlands).

The Ramsar Convention provides a framework for the international cooperation and national action for the use of and conservation of wetland habitats and their associated resources.

Site of Special Scientific Interest (SSSI)

Sites of Special Scientific Interest are designated under The Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA 1981 (as amended) is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention).

Local Nature Reserves (LNR)

Local Nature Reserve (LNR) is a statutory designation under Section 21 of the National Parks and Access to the Countryside Act 1949 and amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006 (NERC). LNRs are local sites that have been designated by the local authorities. To qualify for LNR status the site must be of importance for any of the following reasons; wildlife, geology, education or public enjoyment. The Local Plan for an area will detail any additional protection given to the LNR such as protection against damaging operations and/or protection against development within or adjacent to the LNR. LNRs are statutorily designated sites at the local level. There is no national legal protection specifically for LNRs.

European Protected Species

European protected species (EPS) and their habitat are afforded strict protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).

Taken together, this legislation makes it an offence to:

- Deliberately (intentionally) kill, injure or take an EPS;
- Possess or control any live or dead specimen or anything derived from an EPS;
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by an EPS; or
- Deliberately (intentionally) or recklessly disturb an EPS while it is occupying a structure or place which it uses for that purpose.
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

The above legislation applies to all life stages, including eggs, juveniles and adults.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 continue the same provision for European protected species, licensing requirements and protected areas after Brexit.

Nationally Protected Species

In England and Wales nationally protected species are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The Wildlife and Countryside Act 1981, together with amending legislation, lists the following as offences:

- intentionally capture, kill a listed species;
- damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care);
- disturb them in a place of shelter or protection (on purpose or by not taking enough care); and
- possess, sell, control or transport live or dead listed species or parts of them.

The Office of the Deputy Prime Minister (ODPM) Circular 06/2005, states that the presence of a protected species (European or National) is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.

Badgers and their active setts are protected under the Protection of Badgers Act (1992). The Protection of Badgers Act 1992 was designed to protect badgers from baiting and deliberate harm or injury. It also contains restrictions that apply more widely.

Under this legislation it is an offence to:

- Wilfully kill, injure or take, or attempt to kill, injure or take a badger.
- Cruelly ill-treat a badger, dig for badgers, use badger tongs, use a firearm other than the type specified under the exceptions within the Act.
- Intentionally or recklessly damage, destroy or obstruct access to any part of a sett.
- Disturb a badger whilst it is occupying a sett.
- causing a dog to enter a sett,
- Sell or offer for sale or possess a live badger,
- Have possession or control of a live badger.
- Mark a badger or attach any ring, tag, or other marking device to a badger.

Developments with potential to disturb, destroy or obstruct an active badger sett will require a badger development licence from Natural England/ Natural Resources Wales, which permits otherwise illegal actions.

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Under the WCA, it is an offence to kill, injure or take any wild bird, to take damage or destroy the nest of any wild bird or to take or destroy the egg of any wild bird. A special penalty is levied to any of the above offences being committed in conjunction with a bird listed on Schedule 1 of the WCA. It is also an offence if a person disturbs any bird listed on Schedule 1 while it is building a nest, is on or near a nest containing young or disturbs dependent young of such a bird.

The Countryside and Rights of Way Act 2000 has made it an offence to intentionally or recklessly disturb Schedule 1 species as above and also an offence to intentionally or recklessly take, damage or destroy the nest of any wild bird or its eggs or dependent young.

Invasive Species

Schedule 9 of The Wildlife and Countryside Act 1981 (as amended) lists invasive non-native plant species that are considered to have a detrimental effect upon native flora wherever they occur. It is therefore an offence to “plant or otherwise cause them to grow in the wild”. This includes allowing the species to grow/spread, causing the species to spread or transferring polluted ground material from one area to another. Waste containing these species may be classed as controlled waste under the Environmental Protection Act (Duty of Care) Regulations 1991, which requires all producers, carriers and disposers of waste to follow a code of practice and keep records and must comply with section 34 of the Environmental Protection Act 1990.

Section 23 of the Infrastructure Act 2015 amended the Wildlife and Countryside Act 1981 by inserting a new Schedule 9A to introduce a statutory regime of species control agreements and orders. This schedule ensures that, in appropriate circumstances, landowners take action on Schedule 9 invasive species, or permit others to enter the land and carry out those operations, to prevent their establishment and spread.

Under Section 23 of the Infrastructure Act 2015, the environmental authority has powers to make a species control order to require an owner to take action against an invasive non-native species. The environmental authorities with the powers to make species control agreements or orders in England are the Secretary of State, Natural England, the Environment Agency and the Forestry Commission and in Wales, the Welsh Ministers and Natural Wales.

The EU Invasive Alien Species Regulation (1143/2014) imposes strict restrictions on a list of species known as “species of Union concern” and is implemented by the European Commission Implementing Regulation 2016/1141, which came into force on 3 August 2016. A further 12 species were added to the list on the 13th July 2017 and came into force on 2nd August 2017. This list is drawn up by the European Commission and managed with Member States using risk assessments and scientific evidence.

Under the EU Regulation, it is a requirement for management measures to be put in place for widespread invasive species. The Invasive Alien Species (Enforcement and Permitting) Order 2019 came into effect on 1st October 2019.

The Regulation ensures that a landowner must act responsibly and not allow an invasive species to grow or spread outside their land, which could be an offence and/or contrary to the Regulation. Where this cannot be guaranteed the landowner is required to consider safely removing and disposing of any listed plant.

Appendix 2: Extended Phase 1 Habitat Survey Target Notes

TN1 – Scattered trees

There is a line of semi-mature hornbeam trees, approximately 15m tall, in the south western corner of the site on the southern side of the steel palisade fence. Occasional other species along the boundary include hawthorn, holly and ash.

TN2 – Intact, species-poor hedgerow

The hedgerow along the north western boundary of the site predominantly comprises garden privet and sycamore with some ash seedlings, bramble, an oak sapling and elder. There are two trees within the hedgerow; a semi-mature ash and a mature pedunculate oak tree. Ground flora associated with the hedgerow is sparse comprising common nettle, garlic mustard and herb Robert. The hedgerow ranges from 4-6m in height, c. 3m wide at the south western end, narrowing to c. 1.5m at the north eastern end and lies on the north western side of a steel palisade fence. The only management is likely to comprise trimming back along the pavement on the north-western side. Beyond the hedgerow lies a tarmac pavement, a mown grass verge and road carriageway.

TN3 – Species-rich hedgerow and scattered trees

Along the north eastern boundary of the site on the south western side of the steel palisade fence lies a section of newly planted, species-rich hedgerow comprising holly, spindle, wild privet, elder, blackthorn, hawthorn and guelder rose. The planted whips are currently c. 35-60cm tall. To the south west of the hedgerow are 13 recently planted, scattered trees, c. 4-5m tall, comprising rowan, fastigate pedunculate oak, maple, lime, hawthorn and whitebeam.

TN4 – Semi-natural broadleaved woodland

The survey site borders semi-natural broadleaved woodland to the north east with a canopy dominated by pedunculate oak with some semi-mature ash trees and rare birch. The understorey is sparse with holly and dog rose and the ground flora dominated by bramble.

TN5 – Dense scrub

To the south west of the survey area lies an area of dense scrub c. 3m wide and up to 10m high comprising hazel, holly, hawthorn and sycamore. The ground flora was sparse with bramble, Wilson's honeysuckle and herb Robert.

TN6 – Intact, species-poor hedgerow

Along the south western boundary of the site to the south west of the steel palisade fence lies a section of intact, species-poor hedgerow c. 5m tall comprising rowan, hawthorn, holly and hazel.

TN7 - Intact, species-poor hedgerow

To the east of TN6 along the south western boundary of the site lies an intact, species-poor ornamental hedgerow comprising bearberry spp., oak, cotoneaster spp., rowan and Japanese quince.

TN8 – Standing water

Approximately 10m to the east of the survey area within the area of semi-natural broadleaved woodland lies a large waterbody, c. 50m long by 30m wide. There were two floating islands on the waterbody with a pair of mallard; a grey heron was also present on the margin of the pond. There was limited marginal vegetation; vegetation recorded included water lily and yellow iris with the occasional willow scrub. The water within the pond was turbid. Two further ponds are shown on Ordnance Survey maps within the woodland. A second pond, c. 35m x 20m was visible from Crewe

Road, c. 75m south east of the survey area with some marginal bulrush and water lily present. The site is used for fishing.

TN9 – Standing water

Approximately 20m south of the survey area lies a further waterbody c. 40m long and 20m wide, probably designed to take surface water run-off. The waterbody appeared to be lined and was surrounded by bulrush and the water was turbid. Water lily was also present. Dense scrub was present to the north and west comprising oak, bramble, willow, hawthorn, ash and ornamental rose. The waterbody was fenced to the east and south. A fox was seen adjacent to the waterbody.

Appendix 3: Photographs



Photograph 1: general view across the site from the west towards Waterside House



Photograph 2: general view across the site from the east



Photograph 3: recently planted trees (adjacent to TN3)



Photograph 4: waterbody within the adjacent woodland (TN8)



Photograph 5: waterbody south of Crewe Road (TN9)



Photograph 6: second of three waterbodies within the adjacent woodland viewed from Crewe Road



Photograph 7: part of the species-poor hedgerow (TN2).



Photograph 8: line of hornbeam trees adjacent to the site (TN1)



Photograph 9: newly planted, native species-rich hedgerow (TN3)



Photograph 10: location of the proposed new warehouse adjacent to Waterside House

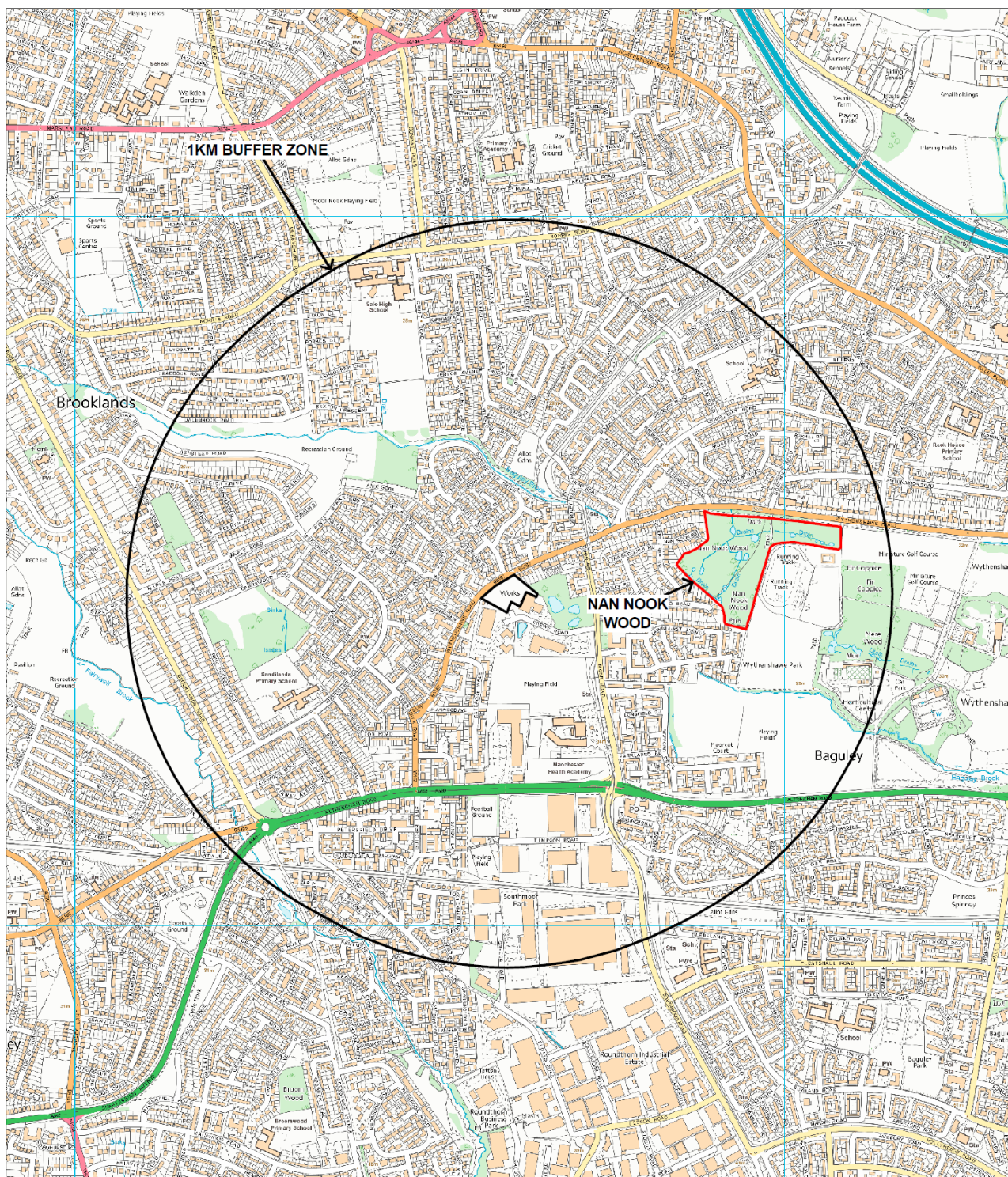


Photograph 11: one of the disused mammal holes and spoil heap



Photograph 12: well worn mammal path alongside the disused mammal holes

**Appendix 4:
Desktop Study Records**



GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SJ 802 899
CREWE ROAD - MAP 1

KEY
SITE OF BIOLOGICAL IMPORTANCE

 SBI BOUNDARY

SCALE 1:10,000

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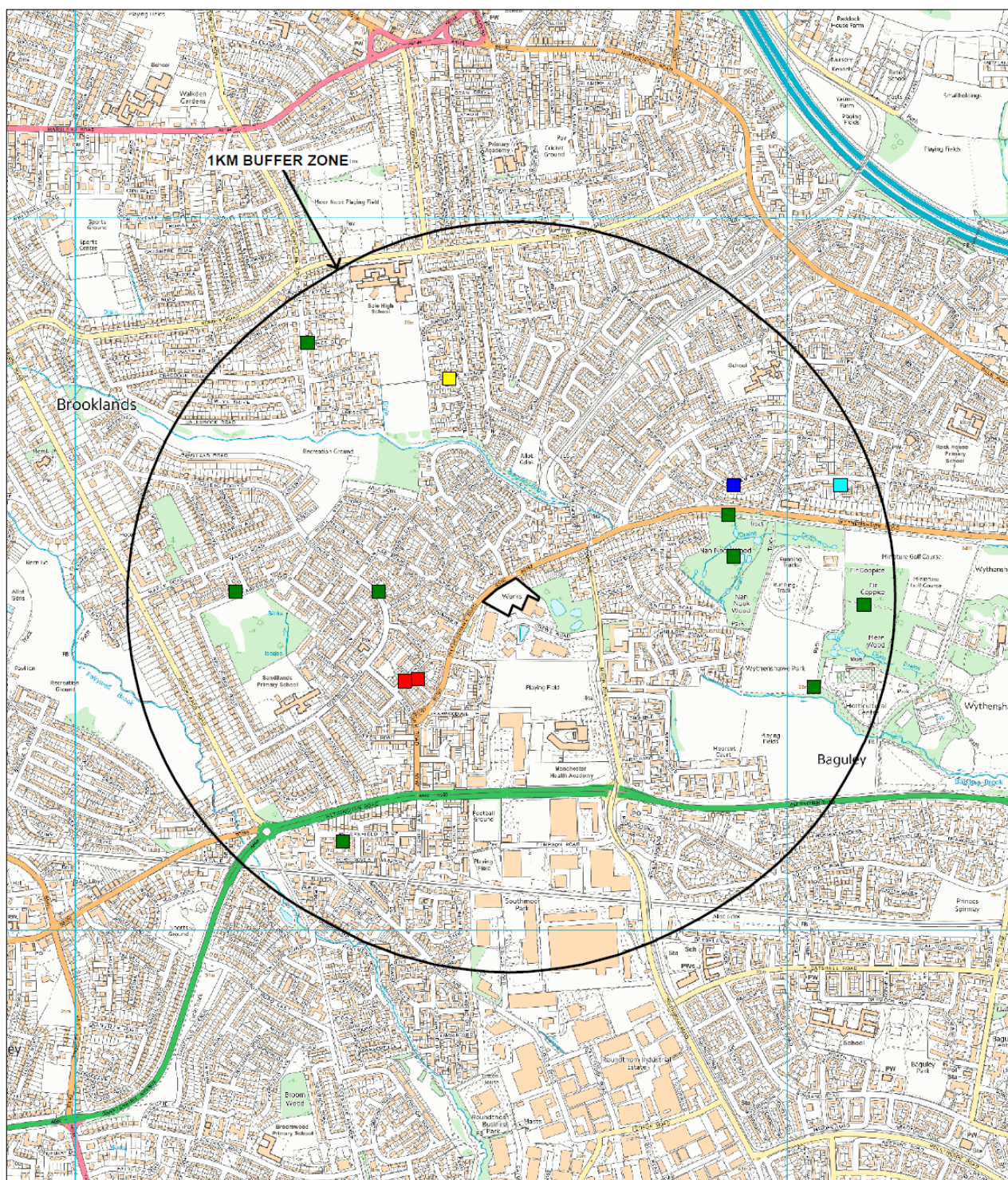
TAMESIDE MBC LICENCE NO LA100022697, 2020



Greater Manchester Ecology Unit

Telephone 0161 342 4409
Email: gmeu@tameside.gov.uk

Date Produced: 07/05/2020



**KEY
BAT SIGNS**

- COMMON PIPISTRELLE
- NOCTULE BAT
- PIPISTRELLE SP
- SOPRANO PIPISTRELLE
- WHISKERED BAT

**GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SJ 802 899
CREWE ROAD - MAP 3**

SCALE 1:10,000

BAT DATA COURTESY OF SOUTH LANCS BAT GROUP

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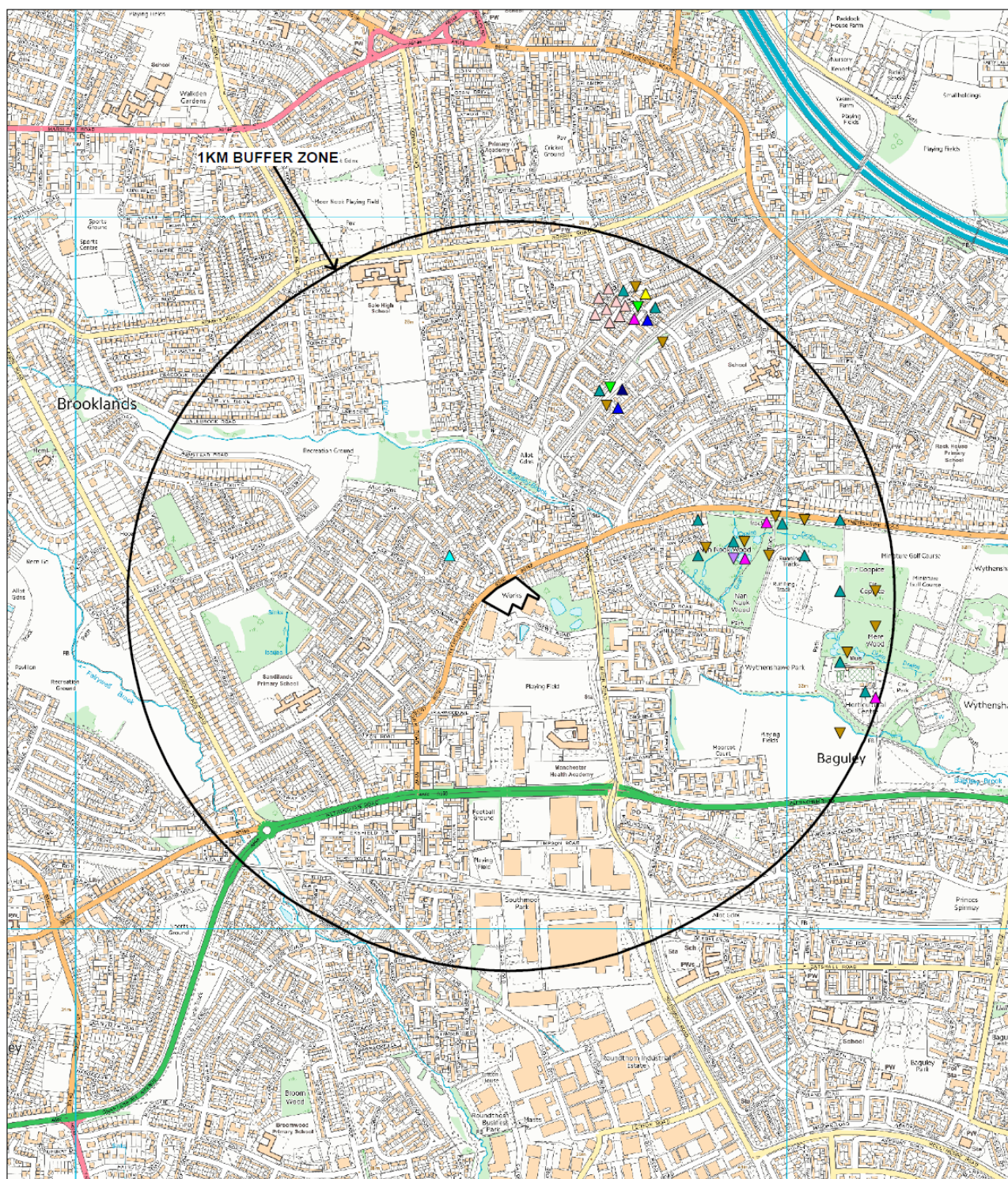
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**Greater Manchester
Ecology Unit**

Telephone 0161 342 4409
Email: gmeu@tameside.gov.uk

Date Produced: 07/05/2020



KEY

SECTION 41 SPECIES

- ▲ BULLFINCH
- ▲ CURLEW
- ▲ DUNNOCK
- ▲ HEDGEHOG
- ▲ HERRING GULL
- ▲ HOUSE SPARROW
- ▲ S41 MOTM
- ▲ SONG THRUSH
- ▲ STARLING
- ▲ TREE PIPIT

**GREATER MANCHESTER ECOLOGY UNIT
ECOLOGICAL SEARCH - SJ 802 899
CREWE ROAD - MAP 4**

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