Ecological Impact Assessment



CASICD, The Christie Hospital, Location

27th September 2023

Tyler Grange

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Summary

S.1. This report has been prepared by Tyler Grange Group Limited on behalf of Integrated Health Projects. It sets out the findings of an Ecological Impact Assessment at the Christie Hospital, Manchester, hereinafter referred to as 'the site'. The proposals are for the redevelopment of the hospital building with associated landscaping and access.

S.2. An 'extended' Phase 1/UK Habitat Classification (UK Habs) survey and Preliminary Bat Roost Assessment was undertaken on the 13th July 2023. A summary of the results are as follows:

- The site is comprised of developed land, including an existing hospital building, hardstanding and introduced planting (negligible ecological importance), and some semi-mature native trees (local importance);
- The site contains habitats that could support common and widespread nesting and foraging birds; and
- The site has no habitat to support any other protected species including roosting bats and they are all considered likely absent and not impacted by the proposals.

S.3. In terms of protected sites, there are no nature conservation sites within the Zone of Influence around the site that would be affected by this development.

S.4. Habitats of negligible ecological importance to be lost to the development, such as developed land and introduced planting, require no specific mitigation. Habitats of local ecological importance to be lost, such as urban trees, will be more than compensated for through replacement planting in the form of tree planting on and off site including the translocation of seven trees. This will also comply with local planning policy EN 15 to aim for a net increase in trees across the city.

S.5. Species-specific enhancements recommended within this report, which include native planting, and provision of bat and bird boxes, which would enhance the site for wildlife and increase the habitat diversity on site providing a range of nesting, foraging and commuting opportunities for species such as invertebrates, bats and birds.

S.6. The biodiversity net gain assessment found that the proposals would result in a gain of 21.47% in habitat units. This would comply with the National Planning Policy Framework (NPPF). This would also comply with the upcoming Town and Country Planning Act 2023 which is expected to mandate a 10% net gain in biodiversity units.

S.7. It is therefore concluded that the proposed development complies with relevant policy EN15 and legislation relating to biodiversity.

Section 1: Introduction and Context

Introduction

1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Integrated Health Projects. It sets out the findings of an Ecological Impact Assessment (EcIA) at the Christie NHS Foundation Trust Hospital, Manchester M20 4BX (OS Grid Reference SJ 848925), hereafter referred to as 'the site'. See **Figure 1.1** for the indicative red line boundary.



Figure 1.1: Indicative red line boundary (© Google Aerial Imagery)

1.2. This assessment has been undertaken to inform a planning application for the redevelopment of the above section of the hospital building with associated landscaping and access. The site proposals are shown in **Appendix 1**.

Site Context

1.3. The site is approximately 0.34 ha in size and comprises hardstanding/building, introduced planting and scattered urban trees. The site is located within Manchester city centre within a residential area surrounding by existing hospital buildings and roads.

Purpose

1.4. This report:

- Uses available background data and results of the field surveys to describe and evaluate the ecological features present within the likely "Zone of Influence"[1] (ZoI) of the proposed development;
- Describes the actual or potential ecological issues and opportunities that might arise as a result of the site's development.
- Where appropriate, makes commitments for mitigation measures for adverse effects on ecological features as well as ecological enhancements, to ensure conformity with policy and legislation listed in **Appendix 2**; and
- Can be used to inform a planning application for the site's development.

1.5. This assessment and the terminology used are consistent with the Guidelines for Preliminary Ecological Appraisal[2] and the Guidelines for Ecological Impact Assessment[3]. A full methodology is set out in **Appendix 3**.

Methodology

1.6. Full methods for the data search, phase 1/ UK Habs survey, Preliminary Bat Roost Assessment (PBRA) and Biodiversity Net Gain (BNG) work can be found in **Appendix 3.**

Quality Control

1.7. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership, and act under the direction of members and abide by the Institute's Code of Professional Conduct[4].

Limitations and Assumptions

1.8. Due to the nature of habitats present onsite (introduced shrubs and small/medium planted trees only), it was not considered necessary to acquire data from the local record centre.

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

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

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

[4] CIEEM (2022) Code of Professional Conduct, CIEEM, Winchester

Section 2: Ecological Features and Evaluation

Designated Sites

2.1. The data search was based on data from the Multi-Agency Geographic Information for the Countryside (MAGIC). See **Appendix 3** for full methodology.

2.2. The data search returned one non-statutory designated site within 2 km of the site and no statutory designated sites within 10km.

2.3. The non-statutory site is Heaton Mersey Common Local Nature Reserve (LNR) located 1.9km southeast. This site is comprised of woodland, grassland and a pond/ streams providing habitat for a variety of wildlife and flora. It is considered to be of county-level ecological importance.

2.4. The site does not fall into a SSSI Impact Risk Zone for which the development would qualify under any of the criteria set out by Natural England requiring further assessment. As such consultation with Natural England is not considered necessary, and this is **not discussed further within this report**

Habitats and Flora

2.5. The habitats present on site are summarised below in **Table 2.2**, along with a description of the composition of the main plant species present and an assessment of their ecological importance. The location of habitats are shown on the Habitats Features **Plan 16076/P02**.

Table 2.2: Habitats and Flora

Habitat	Description and Species	Ecological Importance	Photograph
Hardstanding/ buildings	The majority of the site comprised an existing hospital building and associated hardstanding forming pavements and a courtyard.	This habitat type does not support any flora and does not provide any food or shelter for wildlife. Therefore, it is considered to be of **negligible ecological importance**	
Urban – Introduced Shrub	Areas of introduced planting in planters were present across the east and south of the site, comprising ornamental species.	This habitat is heavily managed and kept short, located within an urban surrounding. Therefore, it is considered to be of **negligible ecological importance**	
Primary code: Built-up areas and gardens u1 Secondary code(s): Scattered trees 11	The scattered trees throughout the site, included one ash *Fraxinus excelsior*, and seven wild cherry *Prunus avium.* Full details of which can be found within the arboricultural survey report written by Tyler Grange in July 2023 (16076_R01).	Both of the scattered tree species are native, early-mature/ semi-mature species. Trees are identified in the local plan and should be retained where possible. As such, they are considered to be of **local ecological importance.**	

Protected and Notable Species

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

Bats

2.7. The data search found, five granted EPS licences for bats within a 2 km radius of the site. The closest licence was located 0.6km west of the site (case reference: 2018-38076-EPS-MIT) and was granted for the destruction of a resting place of common pipistrelle *Pipistrellus pipistrellus* bats.

Bat Activity

2.8. The site lies within an urban context, with light pollution within and adjacent to site, and limited habitats for commuting and foraging bats in the wider landscape. It is assumed that light tolerant species, such as common and soprano pipistrelle, could forage within trees. However, the habitats on site, such as urban trees don't provide significant commuting and foraging opportunities for bats due to their small size and low diversity.

2.9. Overall, the assemblage of bats utilising the site for foraging and commuting is considered to be of **negligible ecological importance**.

Preliminary Bat Roost Assessment

2.10. A preliminary Bat Roost Assessment (PBRA) was conducted alongside the 'extended' Phase 1 Habitat survey. This assessment was carried out on the buildings and trees on site, which may be impacted by the development. See **Appendix 3** for methodology.

2.11. The onsite hospital building and all trees were not observed to have any potential roost features.

Birds

2.12. Habitats on site, such as the building, urban trees and introduced shrub, have the potential to support common and widespread nesting birds.

2.13. It is considered the assemblage of birds that may use the site for foraging and breeding is of **negligible ecological importance**, nevertheless, consideration for nesting birds to avoid a breach of legislation is discussed in **Section 3** of this report.

Section 3: Ecological Impacts, Mitigation, and Enhancement

Proposed Development

3.1. The proposals are for redevelopment of the hospital building with associated access and soft landscaping. The potential impacts at this site as a result of the proposed development are set out below, with reference to relevant legislation and planning policy, which is summarised in **Appendix 2**.

Design Evolution

3.2. The design of the development has been iterative, and in accordance with policy and best practice guidance, follow the 'mitigation hierarchy'. As such, the Development has been designed to avoid and retain the most important ecological features to ensure they can be managed in the long-term to enhance their importance for biodiversity. Where this is not possible, new habitats have been proposed to compensate for habitat losses with the aim of maximising the overall ecological value of the habitats proposed on site.

Designated Sites

3.3. All statutory and non-statutory sites are considered to be sufficiently distant from the site and no adverse impacts are expected.

Habitats and Flora

3.4. Most of the habitats onsite to be impacted by the proposals are of negligible ecological importance, namely building, hardstanding and ornamental planting, and as such no specific mitigation is required.

3.5. Eight scattered trees, which are of local ecological importance, will be lost to provide access to the proposed development. Seven of the trees including two medium and five small size trees will be relocated to an area within the wider Christie Hospital's land ownership. The planting of 16 street trees onsite and 1 native tree offsite (see **Appendix 1**) is expected to more than mitigate for the loss/relocation of these trees.

3.6. Overall, the native planting of trees, and planting of introduced shrubs is expected to improve overall biodiversity for The Christie Hospital.

Protected and Notable Species

Bats

3.7. The onsite building and all trees were assessed to be negligible suitability to support roosting bats.

3.8. To enhance the site for roosting bats, two bat boxes are recommended to be incorporated within scheme by either using integrated bat boxes or externally erected bat boxes on the building or trees (expected to be secured via a suitably worded planning condition).

3.9. Through the planting of the trees, foraging and commuting bats will have enhanced corridors to use on the site post-development.

Birds

3.10. All birds, their nests and eggs, are protected by law and as such it is an offence to intentionally kill, injure, or take any wild bird; intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built; and intentionally take or destroy the egg of any wild bird.

3.11. To avoid triggering the legislation protecting nesting birds, clearance of suitable habitat (the buildings and trees) should be timed outside the nesting bird season (generally taken as March to September inclusive, though this is not defined in law and birds may nest outside of this time). If any clearance works to nesting habitats are required during the nesting season, then pre-removal checks for nesting birds must be carried out by a suitably experienced Ecological Clerk of Works (ECoW), no more than 48 hours prior to the works commencing. If any nesting birds are found to be present, an appropriate buffer zone will be implemented, within which works are excluded for the duration of the breeding attempt. Any active nests will need to be left in situ until a suitably experienced ecologist confirms that the chicks have fledge and the nest is no longer active.

3.12. Habitat creation such as native shrub and tree planting is expected to increase nesting opportunities on site. Additionally, two bird boxes are recommended to be incorporated within the scheme on trees, targeting species of conservation concern (expected to be secured via a suitably worded planning condition).

Section 4: Biodiversity Net Gain

4.1. The NPPF, requires developments to demonstrate a net gain in biodiversity (see **Appendix 2**). In addition, the upcoming Town and Country Planning Act is expected to make a 10% net gain mandatory from November 2023.

4.2. A development achieves biodiversity net gain when the total biodiversity units present post-development is higher than that of the biodiversity units present on site prior to development. Defra's 4.0 metric has been used to calculate the biodiversity value of the site before and after development in terms of ''biodiversity units" to calculate an overall biodiversity net gain or loss.

4.3. The Manchester City Council local policy EN15 also requires a net increase in trees which is demonstrated through the calculator.

Existing Habitats

4.4. The following habitats are present within the red line boundary of the site and are shown on Habitat Features **Plan 16076/P02**. No watercourses or linear habitats were present. The rationale for condition assessments is detailed within the BNG metric **16076/BNG**.

Table 4.1: Baseline Habitats and Areas Retained and Enhanced

Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Area retained (hectares)	Area enhanced (hectares)	Area lost (hectares)
Urban	Developed land; sealed surface	0.23	Very Low	N/A - Other	0	0	0.23
Urban	Developed land; sealed surface	0.10	Very Low	N/A - Other	0	0	0.1
Urban	Introduced shrub	0.01	Low	Condition Assessment N/A	0	0	0.01
Individual trees	Urban tree (2 medium and 6 small trees)	0.0977	Medium	Poor	0	0	0.0977

Proposed Habitats

4.5. The proposals, as shown within **Appendix 1**, have been used to calculate the proposed habitat areas. These proposals include offsite tree planting within the Christie Hospital's wider land ownership. The rationale for target condition assessments is detailed within the metric **16076/BNG**.

Table 4.2: Created Habitats Onsite

Broad Habitat	Proposed habitat	Area (hectares)	Created/enhanced	Baseline condition	Distinctiveness	Target condition
Individual trees	Urban Tree (16 small trees)	0.07	Created	Poor	Medium	Poor
Urban	Introduced shrub	0.012	Created	NA	Low	NA
A net loss on site of 0.19 habitat units, -46.63%						

Table 4.3: Created and Enhanced Habitats Offsite

Broad Habitat	Proposed habitat	Area (hectares)	Created/enhanced	Baseline condition	Distinctiveness	Target condition
Individual trees	Urban Tree (2 medium and 5 small translocated trees)	0.09	Created	Poor	Medium	Poor
Individual trees	Urban Tree (1 new native tree)	0.004	Created	Moderate	Medium	Moderate
A total net gain of 0.07 habitat units, +17.71%						

Results Summary

4.6. As described within the Defra 4.0 metric **16076/BNG** and summarised below in **Figure 4.1**, based on the habitats present on site that will be lost and those to be created on and offsite, the development would result in a gain of 0.07 habitat units. This is a percentage gain of 17.71% in habitat units.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.07
	Hedgerow units	0.00
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	17.71%
	Hedgerow units	0.00%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Figure 4.1: Biodiversity Net Gain Assessment Results Summary, taken from the Defra 4.0 Metric.

Management

4.7. The results of the Defra 4.0 metric are based on the habitats within the site being maintained at a certain condition, as prescribed by the condition assessment sheets published by Defra.

4.8. Details of habitat establishment and long-term management will be provided through the production of a Landscape and Ecological Management Plan (LEMP). The LEMP would set out the prescriptions for the establishment and maintenance of the habitats on site for 30 years.

Section 5: Conclusions

5.1. All statutory and non-statutory sites are considered to be sufficiently distant from the site and no adverse impacts are expected.

5.2. The development will primarily affect habitats of negligible ecological importance. Loss of eight trees, of local ecological importance, will be compensated for by replacement tree planting on and offsite and relocation of seven trees. With the enhancements and habitat creation proposed, including native species planting, habitats of ecological importance on site will be enhanced, providing additional opportunities for biodiversity within the site.

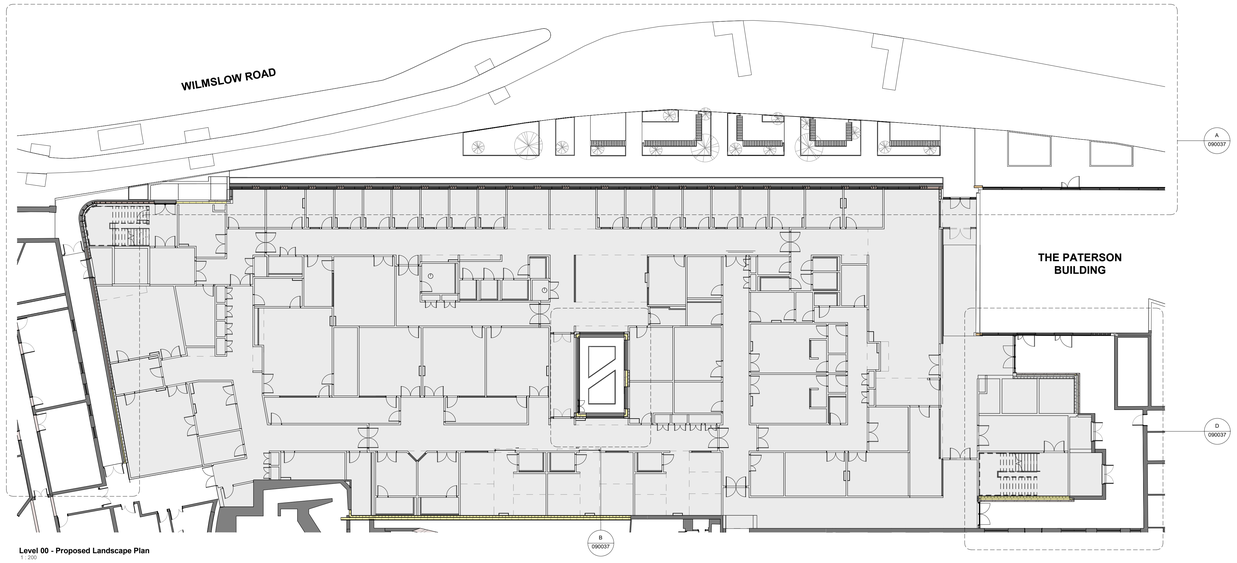
5.3. Trees and buildings had negligible bat roosting potential and no direct impacts are anticipated. No further surveys are proposed, providing the mitigation strategy detailed in **Section 3** is followed. Should vegetation or the building on the site be removed during the core nesting bird season (March-August, inclusive), a pre-works check by an ECoW would be required to determine whether active birds' nests are present.

5.4. The proposals would result in a net gain of 0.07 habitat units (17.71%). A LEMP to ensure the long-term management of the proposed habitat enhancements is expected to be secured via a suitable worded planning condition.

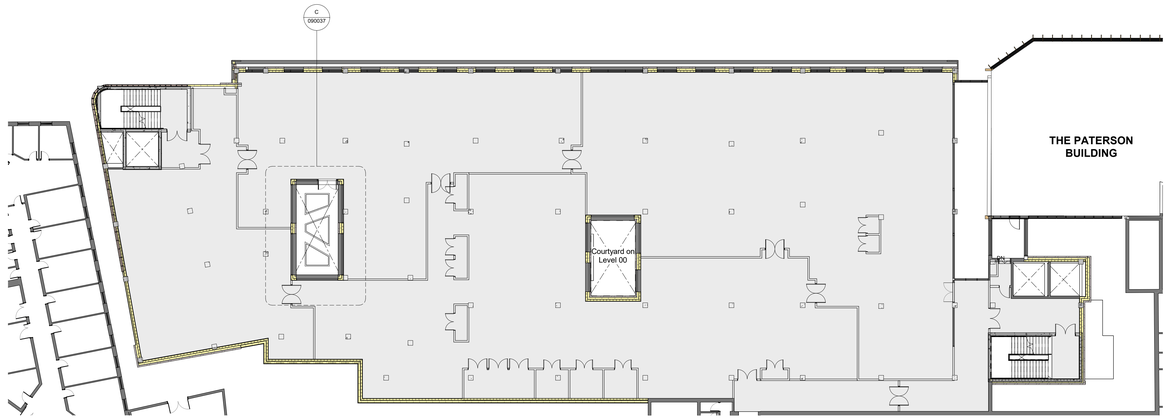
5.5. An appropriately worded planning condition is expected to secure a suitable LEMP or Ecological Enhancement Plan to ensure the long-term management of the proposed habitat enhancements, including proposed tree, and shrub planting, as well as provision of enhancements for specific species groups such as bird and bat boxes.

5.6. In conclusion, in anticipation of the implementation of any necessary mitigation, the proposed development will be compliant with relevant planning policies EN15 of the Local Plan, as well as legislation with regard to ecology.

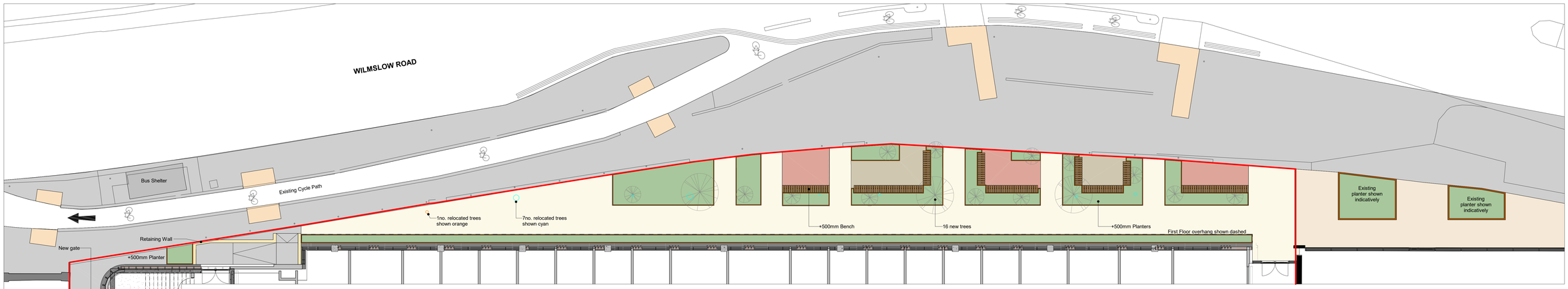
Appendix 1: Proposed Site Plan [CASICD-DAY-XX-00-DR-A-090037]

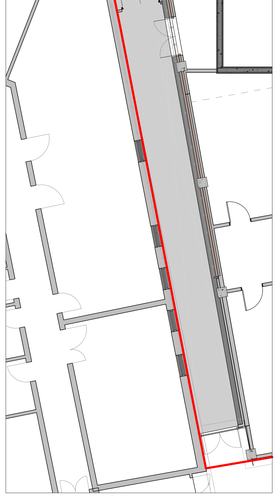


Level 00 - Proposed Landscape Plan
1 : 200

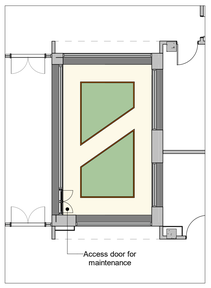


Level 01 - Proposed Landscape Plan
1 : 200

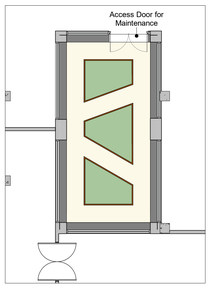




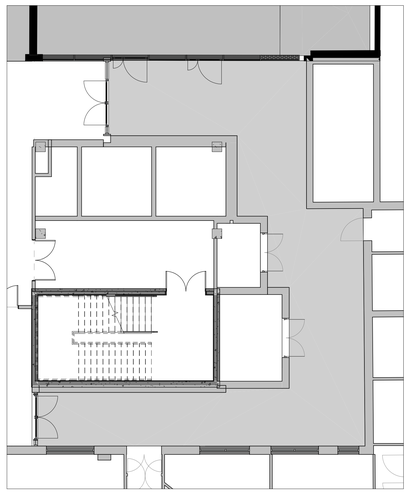
Callout A - Level 00 - Proposed Landscape Plan
1 : 100



Callout B - Level 00 - Proposed Landscape Plan
1 : 100



Callout C - Level 01 - Proposed Landscape Plan
1 : 100



Callout D - Level 01 - Proposed Landscape Plan
1 : 100



Wider Context Aerial View - New & Relocated Tree Locations (NTS)

MATERIALS KEY:

- **Existing / New Asphalt Surfacing**
- **Existing Dropped Kerb**
- **Existing Paving**
- **New Paving**
- **New Pebble Resin Bound System**
- **New Herringbone Paving System**
- **New Timber Benching**
- **Existing / New Planting (Indicative)** To match the Paterson size & species
- **Tree (Indicative)** To match the Paterson size & species
- **Existing / New Copper Weather Resistant Steel** To match the Paterson
- **New Retaining wall**
- **New Ground Floor External Gate**

NOTES
- Landscape design is indicitivate and subject to change and review.
- Species of trees and planting TBC.

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N

WORK IN PROGRESS ISSUE 21/08/2023

REV	DESCRIPTION	DATE	REV BY
P01	Landscape plan revised following Stage 2 Issue	28.07.2023	SB
B	Stage 2 Issue	22.02.2023	HG
A	Updated to client and design team comments	17.02.2023	SS

CLIENT
The Christie NHS Foundation Trust

PROJECT
Advanced Scanning & Imaging Centre Development

DRAWING
Proposed Landscape Scheme Plan

SCALE: **As indicated @ A0**
FIRST ISSUED: **12/09/22**

PROJECT	CLIENT REF	DRAWN BY	CHECKED BY
1282-21	CASICD	SB	GR

ORIGIN	VOLUME	LEVEL	TYPE	ROLE	NUMBER	REVISION
DAY	XX	ZZ	DR	A	090037	P01

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Appendix 2: Legislation and Planning Policy

Legislation

A2.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Environment Act 2021;
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerows Regulations 1997; and
- The Protection of Badgers Act 1992.

A2.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).

A2.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A2.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Environment Act 2021: Upcoming Town and Country Planning Act

A2.5. The Environment Act gained Royal Assent in November 2022. Whilst the premise of Biodiversity Net Gain (BNG) has been around prior to this, the Assent of the Act sets the Framework for future legislation to be changed. This will be in the form of the Town and Country Planning Act (TaCPA), specifically Schedule 14 of the TaCPA, which will make Biodiversity Net Gain a condition of planning (not a planning condition). The target ‘gain’ is currently set at 10% but the Secretary of State has the ability to change this.

A2.6. The timescales for changes to the wording of the TaCPA are that it will be legally mandated and enforceable from November 2023.

National Planning Policy

National Planning Policy Framework (NPPF), September 2022

A2.7. The National Planning Policy Framework (NPPF) was updated in September 2022 and sets out the Government's planning policies for England and how these should be applied. It replaces the National Planning Policy Framework published in July 2019 and July 2021.

A2.8. Paragraph 11 states that:

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

A2.9. Section 15 of the NPPF (paragraphs 174 to 182) considers the conservation and enhancement of the natural environment including habitats and biodiversity (paragraphs 179-182)

A2.10. Paragraph 174 states that planning and decisions should contribute to and enhance the natural and local environment by:

- *"protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
- *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"*

A2.11. Paragraph 175 states that *plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries*.

A2.12. Paragraph 179 states that *in order to protect and enhance biodiversity and geodiversity, plans should:*

- *"Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

A2.13. When determining planning applications, Paragraph 180 *states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles*:

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

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

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

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

A2.14. As stated in paragraph 181 the following should be given the same protection as habitats sites:

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

- *listed or proposed Ramsar sites; and*

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

A2.15. Paragraph 182 states that *the presumption in favour of sustainable development does not apply where the planned project is likely to have a significant effect on a habitat site (alone or in combination with other plans or projects) unless an appropriate assessment has concluded the plan or project will not adversely affect the integrity of the habitats site*.

Local Planning Policy

Manchester City Council Core Strategy

A2.16. Local Policy EN 15 'Biodiversity and Geological Conservation' states:

A2.17. 'The council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given to:

- Sites with international or national designations for their biodiversity value and other sites of biodiversity value (SBIs, LNRs);
- Protected and priority species, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP);
- Sites that are recognised for their geological importance;
- The council's objective to protect and conserve the City's existing trees and woodlands and aim for a net increase in trees across the City

A2.18. Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable habitat areas where appropriate, with reference to the Manchester Biodiversity Strategy and the Green Infrastructure Framework for Manchester.

Biodiversity Action Plans

A2.19. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species and Habitats agreed under the UKBAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A Strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been succeeded, Species Action Plans (SAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.

A2.20. Priority Species and Habitats identified under the UKBAP are also referred to as Species and Habitats of Principal Importance for the conservation of biodiversity in England and Wales within Sections 41 (England) and 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

Local Biodiversity Action Plan

A2.21. The Greater Manchester Biodiversity Action Plan lists the following habitat relevant to the site:

- Urban managed greenspace.

Appendix 3: Methodology and Results

Data Search

A3.1. A desk-based study was conducted whereby records of designated sites and records of protected and priority species were interrogated for the site and the surrounding landscape. The aim of the data search is to collate existing ecological records for the site and adjacent areas. Obtaining existing records is an important part of the assessment process as it provides information on issues that may not be apparent during a single survey, which by its nature provides only a 'snapshot' of the ecology of a given site.

A3.2. The following resources were consulted/contacted:

- Multi-Agency Geographic Information for the countryside (MAGIC) website[5];
- Local Council website[6];
- Joint Nature Conservation Committee (JNCC) website[7];
- Natural England (NE) designated sites website[8];
- Ordnance Survey mapping; and
- Google Maps, including aerial photography.

A3.3. The following areas of search around the boundary of the site boundary were applied:

- 2 km for protected and priority species licence records, national statutory designated and non-statutory sites; and
- 10 km for European statutory sites.

'Extended' Phase I Habitat Survey and UKHabs

A3.4. An 'extended' Phase 1 survey was carried out on the 13th July 2023 by Amy Sherwin MBiol, a suitably experienced ecologist and associate member of CIEEM. The methods used during the walkover survey broadly followed methods used in an 'extended' Phase I habitat survey[9] and entailed recording the main plant species and classifying and mapping habitat types with reference to the Habitat Definitions provided by the UK Habitat Classification Working Group[10].

[5] https://magic.defra.gov.uk/ [Accessed 22/08/2023]
[6] https://www.Manchester.gov.uk/ [Accessed 22/08/2023]
[7] http://jncc.defra.gov.uk/ProtectedSites/ [Accessed 22/08/2023]
[8] https://designatedsites.naturalengland.org.uk/ [Accessed 22/08/2023]
[9] Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough.
[10] Butcher, B., Carey, P., Edmons, R., Norton, L. and Treweek, J. (2020). UK Habitat Classification – Habitat Definitions V1.1

A3.5. Additionally, the habitats identified were evaluated for their potential to support legally protected and notable fauna species. Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape and to provide information with which to assess possible impacts within the context of the site boundary.

A3.6. All habitats were assessed utilising the relevant condition criteria for the relevant habitat type under Metric 4.0", which included confirming 'pass' / 'fail' criteria taken from the UK Habitat/Phase 1 methodology where necessary.

Preliminary Bat Roost Assessment (PBRA)

A3.7. A PBRA was undertaken on trees and buildings of relevance to this assessment. The assessment was undertaken on the 13th July 2023 by Amy Sherwin MBiol. The survey was a daytime inspection and the conditions were considered optimal. All trees and buildings were inspected from the ground using binoculars and high-powered torch for accessible features. In relation to trees, such features may include woodpecker holes, frost cracks, deadwood, knot holes and limb wounds.

A3.8. The potential of each tree and building at the site and immediately adjacent to the site to support roosting bats have been categorised against the criteria described in **Table A3.1**.

Table A3.1: Roost Assessment Criteria[11]

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

A3.9. Results of the PBRA are shown in **Section 2** of this report.

Biodiversity Net Gain

A3.10. The Biodiversity Metric 4.0 metric operates by calculating the number of biodiversity units associated with a particular habitat type (both pre-and post-development) – the 'unit' value associated with each habitat type is calculated based on the following parameters:

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

- Size (in hectares)/Length (in km);
- Distinctiveness (i.e. how rare/valuable a given habitat is);
- Condition (i.e. how well the recorded habitat fits [or will fit] the standardised description of that habitat); and
- Strategic significance (i.e. if the existing or proposed habitat is within an area formally adopted in the local plan for green infrastructure or biodiversity improvements).

A3.11. When considering the creation of new habitats in the post-development site, other factors are also considered when calculating the 'unit' value of a given habitat and these are:

- Time to reach the target condition of each habitat; and
- Difficulty category for the creation of a given habitat.

A3.12. A calculation has been undertaken using the baseline habitats identified during habitat condition assessment survey, which was carried out on the 13th July 2023, alongside the 'extended' Phase 1 survey above. All surveys were carried out by Amy Sherwin MBiol, a suitably experienced ecologist and Associate member of CIEEM.

A3.13. The UK Habitat Classification was used to identify habitat types. Note that the calculation is completed separately for non-linear and linear habitats. Habitat areas entered into the Defra 4.0 metric in hectares were rounded to two decimal places.

Evaluation

A3.14. The evaluation of habitats and species is defined in accordance with published guidance[12]. The scale of importance of each ecological feature is assigned within a defined geographical context, namely international and European, national, regional, county, and local. Below these are features considered to be of negligible importance.

A3.15. Consideration will also be given to legally protected or controlled species which are 'important features' in the context of this assessment, for which mitigation measures are required to ensure legal compliance, regardless of their geographic scale of importance. Thus, it is possible for a feature of negligible ecological importance to be legally protected and hence require mitigation.

A3.16. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. These include site designations (such as Sites of Species Scientific Interest (SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

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

Impact Assessment

A3.17. The assessment of impacts identifies impacts and their effects as a result of the proposed development on important ecological features. This includes consideration of impacts at all relevant stages of the development, including construction and operation/occupation [include decommissioning and restoration, if relevant – it won't be for most projects]. The assessment includes reference to legislation and policy, and supplementary planning guidance where relevant.

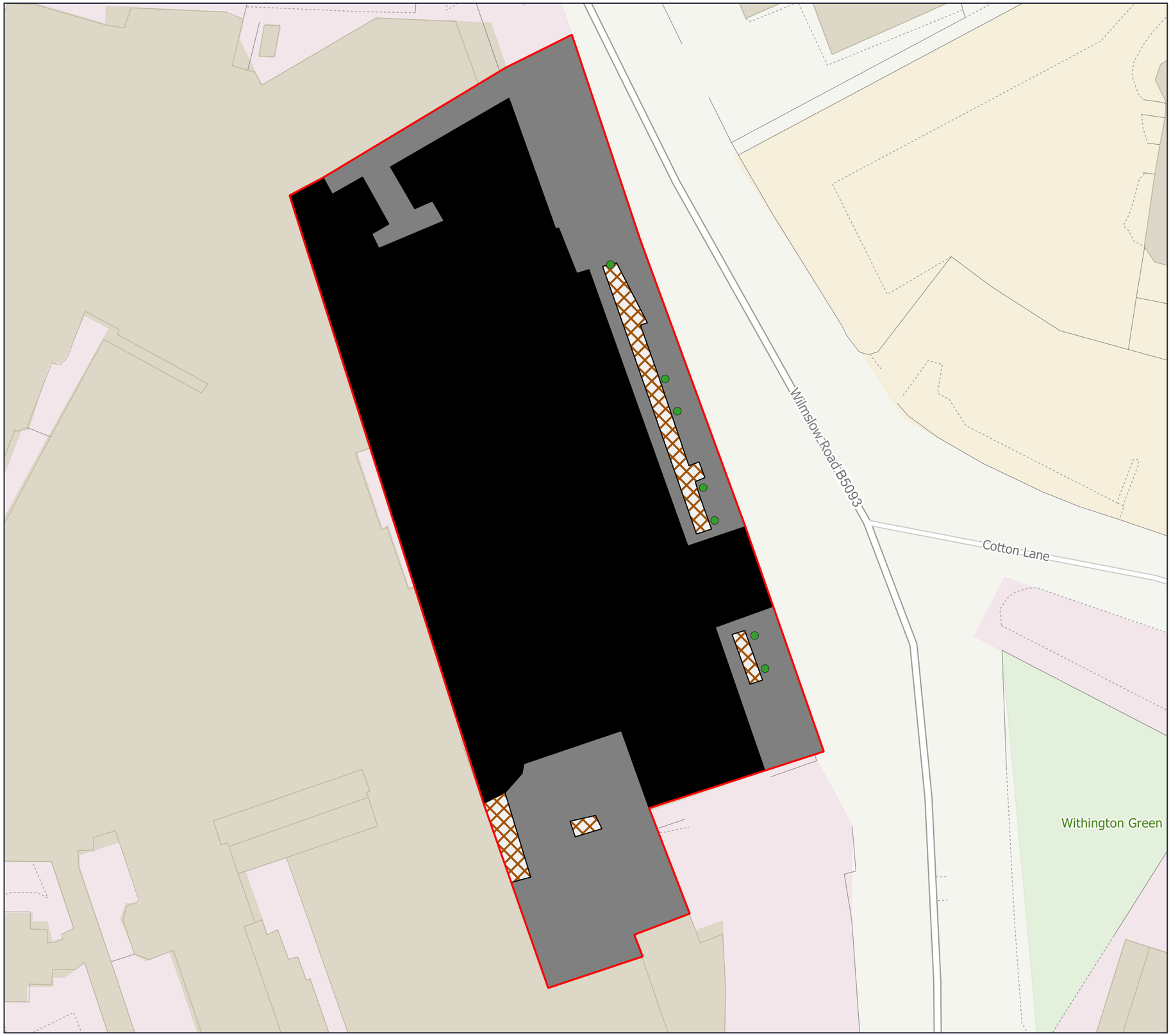
Application of Mitigation Hierarchy

A3.18. Application of the mitigation hierarchy is fundamental to the ecological impact assessment process. This requires consideration of the following measures, in order of priority, for all potential impacts, to determine the most appropriate mitigation, compensation and enhancement strategy for the project. This is taken into account within **Section 3** of this report and set out below:

- Avoidance – measures to avoid harm to ecological features (set out in 'Design Evolution', Section 3);
- Mitigation – measures to avoid or minimise potential impacts as part of the design or guaranteed by planning controls;
- Compensation – measures required to offset significant residual negative effects following avoidance and mitigation; and
- Enhancement – measures over and above requirements for avoidance, mitigation and compensation to provide biodiversity net gain.

Plans:

Plan 1: Habitat Features Plan 16076/P02



Redline Boundary
Building
Introduced Shrub
Hardstanding
Scattered Tree

N

0 10 20 m

Project	The Christie NHS Foundation Trust
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	16076/P02
Date	July 2023
Checked	AS/DM

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