



# Leigh Ecology Ltd

Protected Species and Habitat Surveys



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Cypress Building,  
University of Liverpool,  
Liverpool,  
Merseyside.

On behalf of Ryder Architects.

Report number    Ryder 17/001

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Date:                    6<sup>th</sup> November 2017

Approved: J Leigh

## Ecological Appraisal

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**Appendix 1** – Phase 1 Habitat plan and Key

**Appendix 2** – Phase 1 Target Notes

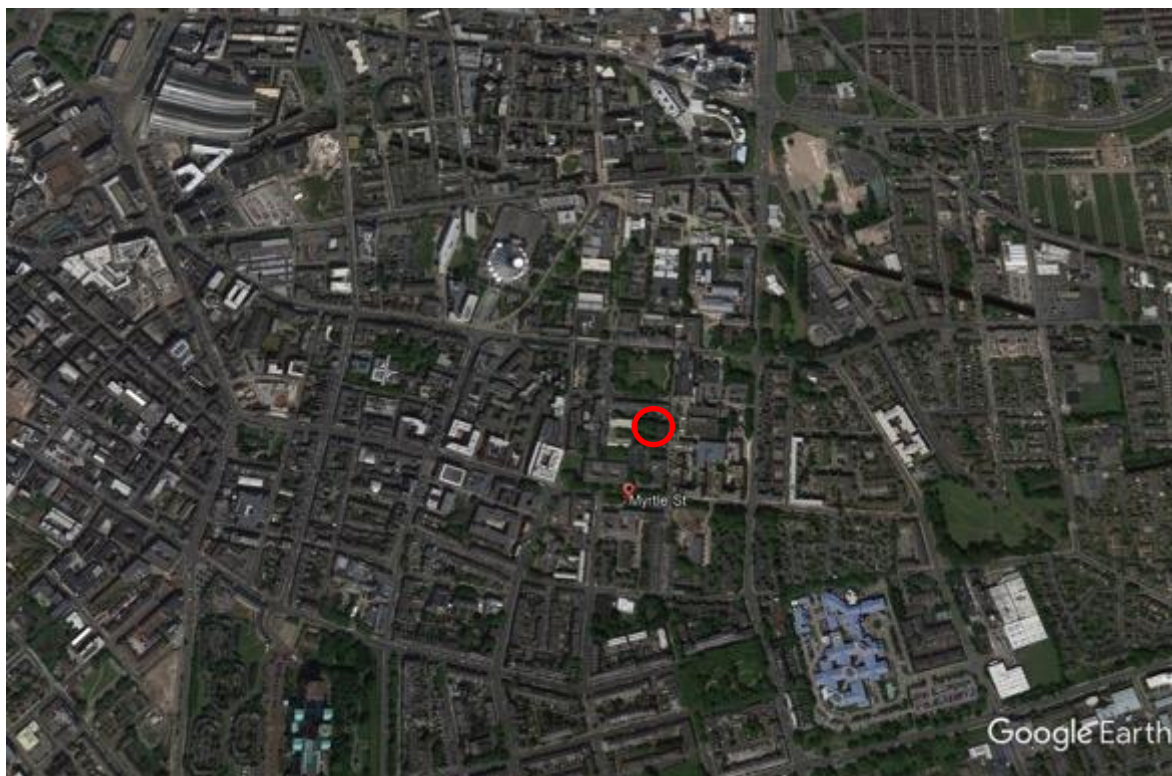
## 1 Executive summary

- 1.1 Leigh Ecology Ltd were commissioned by Ryder Architects to undertake an Ecological Appraisal of a building and grounds known as Cypress building in the University of Liverpool campus, located just off Chatham Street, in relation to the planned extension and improvements to Cypress Building. The survey was undertaken in November 2017.
- 1.2 The site consisted of a 5-storey concrete building and surrounding soft landscaping.
- 1.3 The building is constructed from concrete slabs with little potential for nesting birds or roosting bats, some ivy growth occurs on the western aspect of the building, however it is not considered dense enough to offer roosting or nesting habitat.
- 1.4 The surrounding vegetation is a mix of Lime, Willow, Maple, Ash, London Plane, none of which offer any potential roost features, and given the high level of ongoing disturbance, it is unlikely that any bird species will nest in the trees or hedgerows in abundance.
- 1.5 Small numbers of red/amber listed bird species were present, including singing Song thrush *Turdus philomelos* and Dunnock *Prunella modularis* and starling
- 1.6 Any vegetation clearance should be undertaken outside the bird-nesting season, March – August.

## 2 Introduction

## Background

- 2.1 Leigh Ecology Ltd was commissioned by Ryder Architects to undertake an Ecological Appraisal of land identified for the extension of the Cypress Building on the Liverpool University Campus and adjacent landscaping (approx. National Grid Reference (NGR) SJ 359 898); refer to red circle shown on **Figure 2.1** below.
- 2.2 Sites of biodiversity conservation value, habitats and species in UK and Local Biodiversity Action Plans (BAPS) and protected species are material considerations in the planning process (Department for Communities and Local Government. 2012).
- 2.3 The study is documented in this report and includes the following:
  1. Preliminary ecological baseline for the site;
  2. Protected mammals assessment of the site;
  3. Potential ecological constraints to the development of the site; and
  4. Further ecological work necessary for a planning submission.
- 2.4 All Work was undertaken in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Practice.



**Figure 2.1** The location of Cypress Building, the proposal site.

### 3 Methodology

- 3.1 A preliminary understanding of the ecological baseline of the development site (hereafter referred to as 'the site') was derived through a site survey.

#### *Site survey*

- 3.2 A site survey to inform the Ecological Appraisal was undertaken in November 2017 following Joint Nature Conservation Committee (JNCC) methodology (2010). This identified the habitat types on the site and the presence/absence of protected/notable species<sup>1</sup>. The results of the survey were detailed on a Phase 1 Habitat plan; refer to **Appendix 1**.
- 3.3 Water bodies within 250m of the site were also identified from Ordnance Survey (OS) maps and through aerial photography.

#### *Landscape Assessment*

- 3.4 Bats use regular commuting and foraging routes; these are usually linear features such as hedgerows and watercourse corridors. The loss and severance of such a feature may have an indirect impact on the bats. Therefore, it is important that if the development impacts on these features, they are assessed.

#### *Protected Species Surveys*

- 3.5 The site scrub and linear features were checked for feeding signs, prints, trails, droppings, holes etc. for species including badger.

### 4 Results

#### ***Site survey***

##### *Habitats within the survey area*

- 4.1 The location of the habitats within the survey area is shown in **Appendix 1**, which should be read together with the accompanying Target Notes (TN's); refer to **Appendix 2** and Photographs within the text. Habitat descriptions are provided below; plant species are referred to using their English names.
- 4.2 The survey site covers the full extent of the land shown in Fig 2.1. The development area is a five storey concrete building known as Cypress Building and a buffer area containing soft landscape amenity trees, shrubs and grassland.

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<sup>1</sup> Notable species are those which hold a specific conservation status e.g. Biodiversity Action Plan Priority Species, IUCN Red Data Species etc. Some notable species may also be legally protected.

- 4.3 The proposal site itself is a five storey building which is constructed from smooth concrete blocks and panels with large sections of glass and a flat roof.
- 4.4 Some ivy growth occurs on the western aspect of the building
- 4.5 The surrounding landscaping comprises of amenity planting, including Lime, Willow, Maple, Ash, London Plane trees situated along pathways and within the garden surrounding the building and between the target building and others adjacent buildings.
- 4.6 Some ornamental shrubs are provided within linear borders.
- 4.7 A map showing the habitat areas is presented in **Appendix 1**.

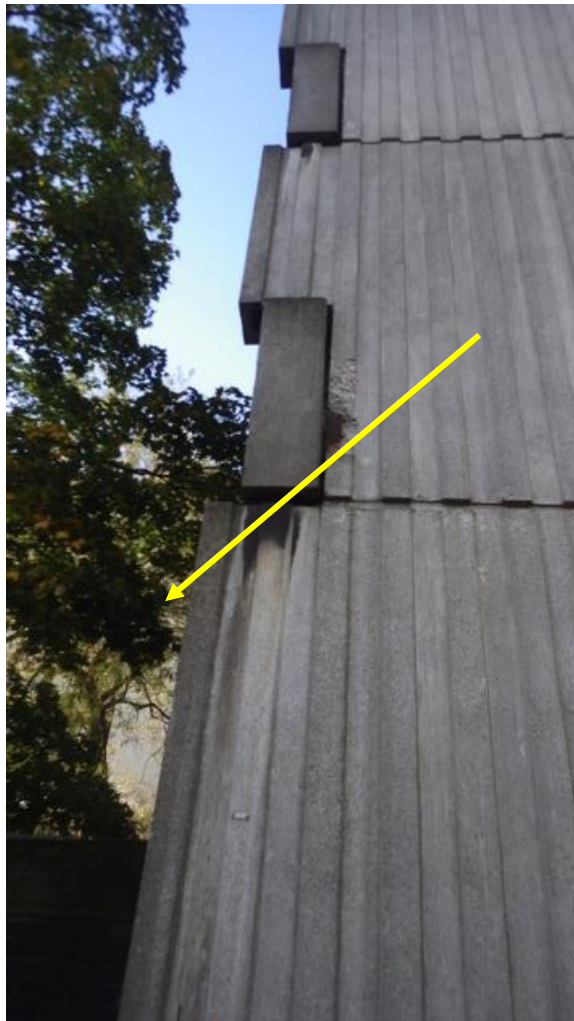


**Photograph 1: The frontage of the proposal building, note frontage is well maintained with little potential for roosting bats or nesting birds.**





***Photograph 2: The building is constructed of concrete slab and bands.***



***Photograph 3: The concrete panels are bolted and sealed with bonding, which seal up the joints preventing access by bats.***





***Photograph 4: The tree cover consists of mature trees which are well maintained and small immature amenity trees.***



***Photograph 5: The amenity vegetation consists of patches of lawn, shrub borders and trees, immature trees are located along pathways***



***Photograph 6: The gardens located to the rear of the proposal site are amenity grassland lawn, skirted by ornamental shrubs and trees including Lime, Maple and London Plane.***



***Photograph 7: The ivy growth located on the western vertical aspect of the proposal building.***

### *Surrounding habitats*

- 4.8 The site is surrounded on all four sides by a built environment, which fragmented the site for terrestrial fauna.

### ***Protected and notable species***

#### *Invertebrates*

- 4.9 As the garden area adjacent the proposal site has the potential to contain a number of flowering plant species, it is likely that butterflies, moths and bumblebees will frequent the scrub habitat.

#### *Amphibians*

- 4.10 Great crested newts are protected by Schedule 2 of the Convention of Habitats and Species Regulations (2010) and Schedule 5 of the Wildlife and Countryside Act (1981, as amended), which provide protection to both the individuals and the areas they use for rest, shelter or breeding. Great crested newts are also a UK BAP and LBAP priority species.
- 4.11 The site survey identified no natural ponds within 250m of the proposed site..

#### *Reptiles*

- 4.12 No reptiles were located during the site visit and are unlikely to be present on the site given the sites fragmentation to any good reptile habitat.

#### *Birds*

- 4.13 The site provided suitable nesting and foraging habitat (e.g. shrubby broadleaved trees) for a range of bird species, including UK BAP and LBAP species.
- 4.14 However, given the site is highly disturbed this would limit the shrub habitats potential.
- 4.15 Therefore, care is advised and any tree/scrub clearance should take place outside the bird-nesting season (March – September).

#### *Bats*

- 4.16 The majority of the trees within the proposed site are not mature enough to provide bat roosting potential, i.e. they possessed little in the way of features suitable for roosting bats such as rot-holes, fissures, cracks and hollows.
- 4.17 The target building has negligible bat roost potential; the building is well sealed and contains no loft space or wall cavities.



- 4.18 The building does have some ivy growth on the western vertical aspect; however, upon close inspection the growth is patchy and not dense enough to offer bird nesting or bat roosting potential.
- 4.19 The proposal site is likely to support invertebrates and therefore provide some foraging and commuting potential for bats, however, it is likely that bat activity will be limited given the adjacent street lighting.

#### *Badgers*

- 4.20 No signs were located during the site survey, given the fragmented position and the security of the fences it is unlikely that badgers will be able to frequent the site.

#### *Other mammals*

- 4.21 The proposed site also provided suitable habitat for hedgehog and for other mammal species such as fox *Vulpes vulpes*, and small mammals such as mice.

## **5 Constraints and Recommendations**

- 5.1 The proposed development (within the red line site boundary as shown in **Figure 2.1**) will involve extending and improving the Cypress Building.
- 5.2 It is considered that the proposal will have low impact on the flora and fauna, however, some low level, localised impacts will occur, these are discussed below.
- 5.3 Construction and post construction impacts are therefore possible upon both the habitats and species within and immediately adjacent to the site. Ecological constraints and recommendations with regard to any development of the site are discussed below.

#### *Designated sites*

- 5.4 The proposed development site does not lie within or adjacent to any statutory or non-statutory designated sites.
- 5.5 It is unlikely that the proposed development will have a direct or indirect negative impact on any statutory or non-statutory sites.

#### *Habitats*

- 5.6 The target building can be considered as possessing little ecological value.

- 5.7 The current onsite landscape proposals should be protected if possible and any propose enhancement should include the improvement of current linear features linking in with local park areas.
- 5.8 Any proposed planting should use locally sourced native species, which offer food resources for wildlife. Promotion and retention of habitat linkage should be of primary consideration.
- 5.9 There is the potential for some of the habitats on site to support protected species; this is discussed below.

### ***Protected species***

#### *Birds*

- 5.10 Nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments) and it would be an offence to damage or destroy a nest or otherwise disturb a nesting bird.
- 5.11 Because of the possible presence of nesting birds it is recommended that any necessary removal of vegetation takes place outside of the bird-breeding season (at least March to September).
- 5.12 Should this not be possible; a pre-works check by a qualified ecologist should be undertaken to ensure that nesting birds are absent.
- 5.13 Some compensation in order to mitigate the loss of habitat may be required; this should be located to ensure linkage to foraging habitat, such as planting of additional shrubs and trees within the proposed site and along boundaries.

#### *Amphibians*

- 5.14 No on-site habitat occurs and therefore impact negligible.

#### *Bats*

- 5.15 All bat roosts are fully protected under the Wildlife and Countryside Act 1981 (and amendments) and The Conservation of Habitats and Species Regulations 2010, which defines these animals as European Protected Species. An offence would be committed if roosts, whether occupied or not, were destroyed, damaged or obstructed, or if Bats themselves were harmed or disturbed.
- 5.16 The trees and buildings within the site provide little opportunity for roosting bats; therefore, no roosts will be impacted on.

- 5.17 Foraging habitat could be provided by improving adjacent site boundaries for bats as navigational flight lines, which could potentially hold some importance for colonies of roosting bats that may be in close proximity to the site, however, this is likely to be limited by the surrounding built environment and the street lighting.

*Badger*

- 5.18 No signs of badger activity was noted during the survey and given the urban location of the site it is unlikely that badgers would frequent the site. Therefore, it is assumed that the proposed development would have negligible impact on the local badger population.

## 6 References

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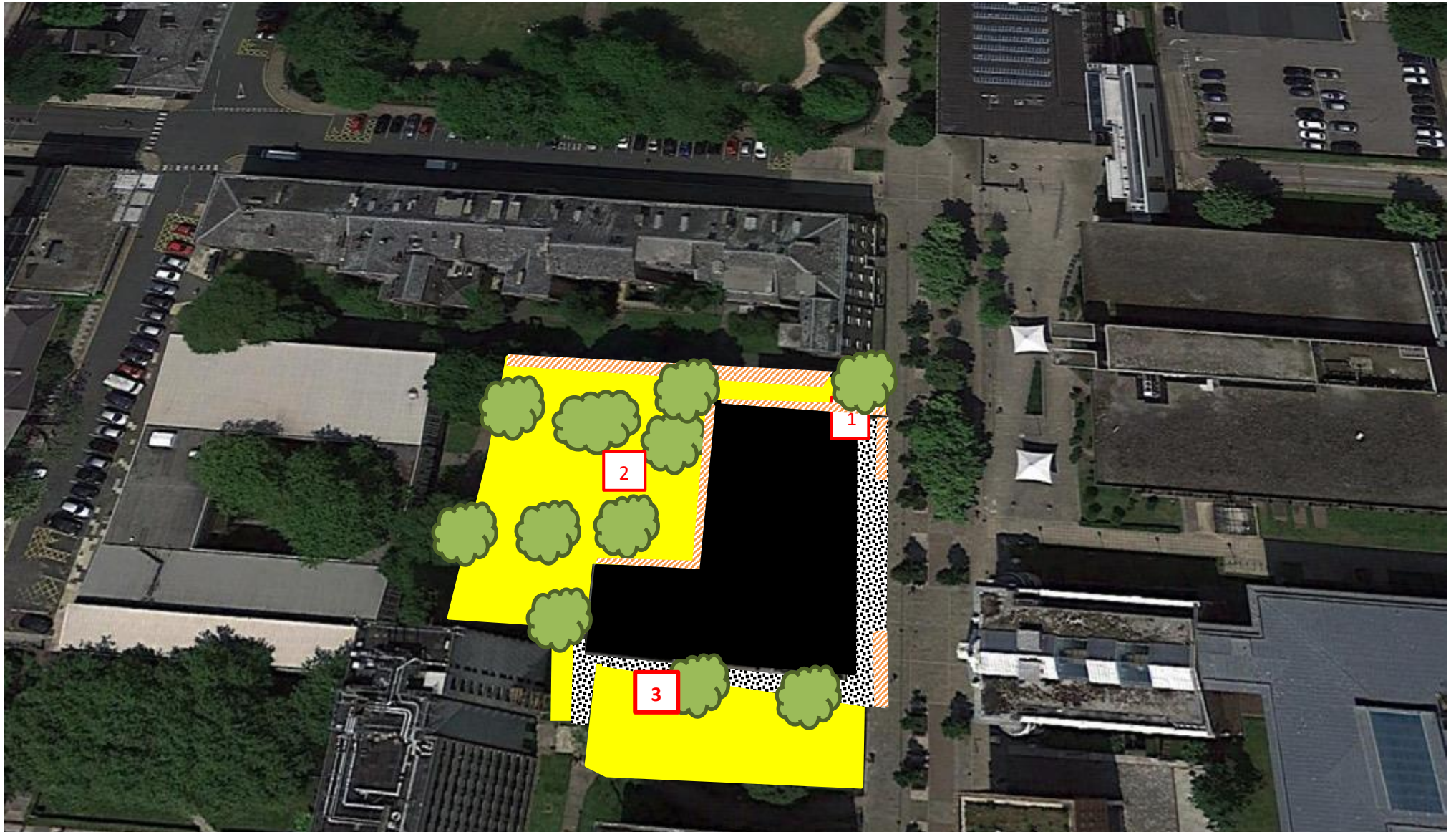


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## **7 Appendices**


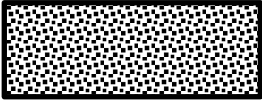

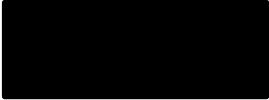


**Appendix 1 – Phase 1 Habitat plan**

**Appendix 2 – Phase 1 Target Notes**



Appendix 1 Phase 1 Habitat Map

## Appendix 1 – Phase 1 Habitat plan Key

Habitat	Map Key
Amenity Grassland	
Hard Standing	
Planted Shrubs	
Building	
Trees (indicative location)	
Target Notes	

## **Appendix 2 – Phase 1 Target Notes**

<b>Target Note</b>	<b>Photo No</b>
1 Ivy Growth on Cypress Building	7
2 Amenity landscaping	5 and 6
3 Mature trees adjacent to the building	4