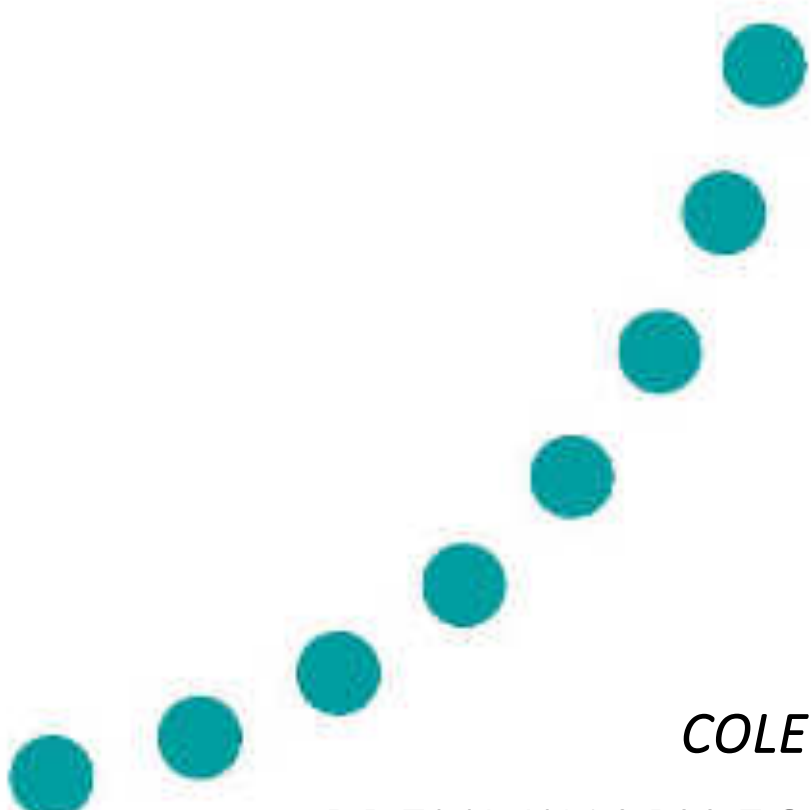




TACP



*COLEG CAMBRIA  
PRELIMINARY ECOLOGICAL  
APPRAISAL*

*JULY 2018*





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**GROVE PARK – PRELIMINARY ECOLOGICAL APPRAISAL**

**TACP ARCHITECTS**

*July 2018*

**TACP  
10 PARK GROVE  
CARDIFF  
CF10 3BN**

Project Number: **2244**

Revision: **Rev 1**

Revision No.	Written by	Date	Approved by	Date
<b>0</b>	<b>KL/JH</b>	<b>03/08/17</b>	<b>PMc</b>	<b>04/08/17</b>
<b>1</b>	<b>JB</b>	<b>27/07/18</b>	<b>PMc</b>	<b>27/07/18</b>



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**Figure 4.1: Environmental Designations**

**Figure 4.2: Habitat Map**



## APPENDICES

**Appendix A: Plans of Proposals**

**Appendix B: Target Notes**

**Appendix C: Preliminary Ground Level Roost Assessment of Trees**

## SUMMARY

This report comprises a scoping study for the proposed redevelopment of Grove Park campus (Coleg Cambria) in Wrexham, to provide a preliminary ecological appraisal of the site and assess the need for further surveys. A desktop study was carried out to assess the ecological features in the wider area and a site walkover was carried out in June 2017, within the optimum period for Phase 1 habitat surveys.

The desktop study revealed that there are records for rare and protected species such as bats and badgers within 1km of the study area. There are no statutory designated sites within 1km of the development site.

The majority of the site comprises amenity grassland which is of low ecological value, but there is a single area of introduced shrub and several boundary treelines. These habitats are of low local value to fauna such as breeding birds, mammals and invertebrates. No evidence of badgers was found on the day of the survey.

There are records for several bat species in the vicinity, including common pipistrelle and noctule, both European Protected Species. The treeline habitats may be of importance to commuting and foraging bats.

Several trees are to be lost to the development, one of which has moderate to high potential for roosting bats. It is recommended that this tree is surveyed so that the potential bat roosting features can be confirmed for evidence of use by bats, and all other trees to be soft felled.

---

## 1 INTRODUCTION

TACP were commissioned by TACP Architects in June 2017 to undertake an Extended Phase 1 habitat survey at the Grove Park college campus in Wrexham proposed for redevelopment, and to assess the preliminary potential ecological impacts of the development using information from a desktop study and from a field habitat survey.

This report, which has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) guidance document '*Guidelines for Preliminary Ecological Appraisal*' (CIEEM, 2013), provides an initial ecological overview of the site, including a description of ecological receptors both within and near the site. The potential ecological impacts of the current proposals are assessed, and recommendations are provided for further surveys at the site, where necessary. General mitigation measures and possible enhancement measures are proposed for the works.

## 2 BACKGROUND

### 2.1 Site Description

The site is located on Grove Park Road in the town of Wrexham, centred on grid reference SJ 334 506 (**Figure 2.1**).

The site is located to the north of the town centre of Wrexham and is set within an urbanised landscape. It is bounded to the north by the A5152, to the west by Rhosddu Road and to the east by Chester Road. The site has numerous small treelines and scattered trees and there are areas of amenity grassland to the north-east and south-west of the site with Bellevue Park located approximately 640m to the south-west.

The site is primarily amenity grassland with scattered trees and ornamental shrub with multiple areas of hard standing used for car parking and pedestrian access.

### 2.2 Proposed Development

It is proposed to demolish and rebuild several of the buildings in the southern end of the site. Proposed site plans are included as **Appendix A** to this report.



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## 3 METHODS

### 3.1 Desk Study

A desk study, involving a data search for designated sites, protected species and existing habitat information within a 1 km of the site, was undertaken. The North Wales Environmental Information Service (Cofnod) was the main source of information in this study; data supplied by Cofnod comprised records of protected, significant and Biodiversity Action Plan (BAP) sites and species.

### 3.2 Field Surveys

An extended Phase I habitat survey of the school site was carried out by Jean Hamilton, BSc, MSc, MCIEEM, on the 14<sup>th</sup> June 2017. These surveys were conducted following the methods outlined in the Joint Nature Conservation Committee (JNCC)'s *'Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit'* (JNCC, 2010). Habitats within the site were classified and mapped, and species lists were taken for each habitat.

An assessment of the potential for the trees on site to support roosting bats was undertaken by Alice Jackson, BSc, MSc to determine if further surveys for presence/absence would be necessary. This assessment was conducted following the methods outlined in the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd Edition (Collins, 2016).

Habitats on site were also evaluated for their potential to support rare and protected species. Bird species seen and heard during the Extended Phase 1 survey were noted.

### 3.3 Site Assessment

The wildlife value will be assessed using the Ratcliffe Criteria<sup>1</sup>. This assesses an ecological feature in terms of:

- Fragility
- Rarity
- Size (Area or extent)
- Diversity
- Potential Value
- Position within the Ecological/ Geographical Unit
- Typicality
- Recorded History
- Naturalness
- Intrinsic Appeal

The degree to which a feature can be substituted is also taken into consideration. Guidance suggests that the loss of a feature of national value that is irreplaceable may be considered more significant than the loss of a feature that can be replaced or substituted.

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<sup>1</sup> Ratcliffe, D. A. (1977). *A Nature Conservation Review*. Cambridge University Press.

The overall ecological value of the area will be considered in the context of the pattern of habitat and interdependencies between habitats, as well as the relative legislative value of any protected species, habitats or sites.

Values are given in terms of the geographical context in accordance with CIEEM (2016) guidance, as shown below:

- International and European
- National
- Regional
- Metropolitan, County, vice-county or other local authority-wide area
- Local

The assessment will include direct, indirect, short-term, medium-term and long-term, secondary and cumulative impacts. Positive and negative impacts on the ecological baseline of the site will also be assessed.

Magnitude of impact will be assessed by the scale of loss or damage predicted to semi-natural vegetation, wildlife habitats and protected species. Significance will be assigned by looking at the magnitude of change to habitats and species of local and regional importance and assigning higher significance to greater loss of regionally important habitats.

The following criteria for determining the magnitude of impact will be used and are based upon, or adapted from, those given in the Guidance.

**Major negative** - The proposal may adversely affect the integrity of the site, in terms of the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the population levels of species of interest. This includes large-scale damage or loss of a large proportion of a particular semi-natural habitat type or protected species habitats that are of regional/national importance or listed as key habitats in the UK Biodiversity Action Plan Steering Group Report Loss of Protected Species.

**Moderate negative** - The site's integrity will not be adversely affected but the effect on the site is likely to be significant in terms of its ecological objectives. If, in the light of full information, it cannot be clearly demonstrated that the proposal will not have an adverse effect on integrity, then the impact should be assessed as major negative. This would apply in the case of damage or loss of a small proportion of a particular semi-natural habitat type or protected species habitat that are of local importance or listed as key habitats in the UK Biodiversity Action Plan Steering Group Report.

**Slight negative** - Neither of the above apply, but some minor negative impact is evident. (In the case of Natura 2000 sites a further assessment may be necessary if detailed plans are not yet available). This would apply in the case of damage or loss of common semi-natural vegetation, wildlife habitats or important wildlife but not protected species. Habitats are not locally or regionally important.

**Neutral** - No observable impact in either direction. This would apply in the case of damage or minor losses of common types of habitats or common wildlife. Habitats are not locally or regionally important.

**Slight Positive** - Impacts which provide a slight net gain for biodiversity overall. This would apply in the case of an increase in the population of a species or area of habitat which is not locally or nationally important.

**Moderate Positive** - Impact which provide a net gain for biodiversity overall (but which will not positively affect the integrity of the site). This would include a small increase in the proportion of a semi-natural habitat or habitat of a protected species that are locally important or listed as key habitats within the UK Biodiversity Action Plan Steering Group Report.

**Major Positive** - Impact which provides a net gain for biodiversity overall in terms of increases in habitat diversity (and which may positively affect the integrity of the site). This would apply in the case of a large-scale increase in a protected species or habitat of a protected species that are locally important or listed as key habitats within the UK Biodiversity Action Plan Steering Group Report.

The overall significance of each impact is determined from the ecological value of the feature and the magnitude of the potential impact, as shown in **Table 3.1**.

**Table 3.1: Overall Significance of Impact Assessment**

Magnitude of potential impact	Nature Conservation Value of Sites Damaged or Improved				
	International	National	County/District	Local	Zone of influence
<b>Major negative</b>	Very large adverse	Very large adverse	Moderate adverse	Slight adverse	Neutral
<b>Moderate negative</b>	Large adverse	Large adverse	Moderate adverse	Slight adverse	Neutral
<b>Slight negative</b>	Slight adverse	Slight adverse	Slight adverse	Slight adverse	Neutral
<b>Neutral</b>	Neutral	Neutral	Neutral	Neutral	Neutral
<b>Slight Positive</b>	Slight positive	Slight positive	Slight positive	Slight positive	Neutral
<b>Moderate positive</b>	Large positive	Large positive	Moderate positive	Slight positive	Neutral
<b>Major positive</b>	Very large positive	Very large positive	Moderate positive	Slight positive	Neutral

---

## 4 RESULTS

### 4.1 Desktop Study

#### 4.1.1 Sites Designated for Nature Conservation Importance

There are no designated sites located within 1km of the development site.

There is a small area (0.64 hectares) of broadleaved woodland located approximately 756m south-west of the site. It will not be affected by the development but does provide roosting and foraging habitat for bats in the area.

#### 4.1.2 Species of Conservation Importance

There are records for numerous species of conservation importance within a 1km radius of the site. These records are summarised below, along with information on the conservation status of the species.

##### 4.1.2.1 Mammals

There are records for **common pipistrelle (*Pipistrellus pipistrellus*)**, and **noctule (*Nyctalus noctula*)** bats within a 1km radius of the site. **Bats** are European Protected species listed on Annex IV of the Habitats Directive 1992 which is transposed into UK law by the Conservation (Natural Habitats &c) Regulations 1994 or “Habitats Regulations” and consolidated within The Conservation of Habitats and Species Regulations 2010. Bats are also protected through Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended). Common pipistrelle bats are listed as Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006. Pipistrelle bats are also Priority Biodiversity Action Plan (BAP) species on the UK BAP. Bats are generally nocturnal and will rest during the day in roosts. These can be found in a variety of places depending on the species concerned including trees and old or new buildings. All species found in the UK feed on insects and generally follow linear features in the landscape for navigation and feeding.

There are records for **badger (*Meles meles*)** within a 1km radius of the site. Badgers are protected under the Protection of Badgers Act and The Bern Convention on the Conservation of European Wildlife and Natural Habitats.

There are records for **European hedgehog (*Erinaceus europaeus*)** and **Weasel (*Mustela nivalis*)** within 1km of the site. European hedgehog is listed as a Species of Principal Importance for Conservation of Biological Diversity in Wales under Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006. Both species are afforded protection under the Bern Convention and European hedgehog is also included in the Pembrokeshire Local BAP.

##### 4.1.2.2 Reptiles and Amphibians

**Common lizard (*Zootoca vivipara*)** and **slow worm (*Anguis fragilis*)** have been recorded within a 1km radius of the site. All reptiles are protected against killing, injuring and sale under U.K. legislation through their inclusion in Appendix III of the Bern Convention (1979), Schedule 5 of the WCA 1981 (as amended) and the NERC Act 2006. Reptiles require dense vegetation for cover and foraging

opportunities with some more open areas where they can bask safely and can be found in a variety of habitats including meadows, woodlands, urban and sub-urban habitats.

**Common toad (*Bufo bufo*)** and **common frog (*Rana temporaria*)** have also been recorded within 1km of the site. Both of these species are protected against killing, injuring and sale under U.K. legislation through their inclusion in Appendix III of the Bern Convention (1979), Schedule 5 of the WCA 1981 (as amended) and common toad is listed under Section 42 of the NERC Act 2006. Common frog is also listed within the Habitats Directive (Annex V).

#### 4.1.2.3 Birds

All bird species, including their eggs and nests, are protected from harm during the breeding season under the WCA 1981 to varying degrees. Further protection is afforded to those listed on Schedule 1 of this Act; it is an offence to intentionally or recklessly disturb these birds at, on or near an 'active' nest. Certain species are also afforded further protection under Annex I of the EC Birds Directive. All UK birds are categorized under the Birds of Conservation Concern (BoCC) listings as Red, Amber or Green for their conservation status, and there is a specific list for birds in Wales (RSPB, 2009). Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green.

Within 1km of the site, the Schedule 1 species **fieldfare, hobby, kingfisher and peregrine** have been recorded and nine Red-listed species: **herring gull, starling, fieldfare, song thrush, redwing, mistle thrush, spotted fly catcher, grey wagtail and lesser redpoll.**

Generally, birds require a mixture of habitats for breeding, feeding, over-wintering etc. making it possible that some of the bird species could utilise the site.

#### 4.1.2.4 Invertebrates

The nationally notable bee species Large Yellow-face Bee (*Hylaeus signatus*) and Four-spotted Furrow Bee (*Lasioglossum quadrinotatum*) have been recorded within a 1km radius of the site. Large Yellow-face Bee is generally found in open habitats, including calcareous grassland, quarries, coastal marshes, beaches, post-industrial sites and private gardens. Four-spotted Furrow Bee is usually found on heaths, calcareous grassland and in open woodland.

Bright Four-spined Legionnaire (*Chorisops nagatomii*), a nationally notable species (Chandler, 1998) has also been recorded within a 1km radius of the site.

The nationally notable beetle species *Catapion pubescens* and *Cassida hemisphaerica* have also been recorded within a 1km radius of the site.

#### 4.1.2.5 Plants

There are records for Welsh Poppy (*Meconopsis cambrica*) and bluebell (*Hyacinthoides non-scripta*) within a 1km radius of the site. Bluebell is protected under Schedule 8 of the Wildlife and Countryside Act, which prohibits the picking and sale of plants.

---

## 4.2 Extended Phase 1 Survey

The survey was carried out in June 2017, within the optimum time for conducting Extended Phase 1 surveys.

### 4.2.1 Habitats within the Site Boundary

The distribution of these habitats within the site is shown in **Figure 4.2** and are described below. The following habitats were recorded within the site:

#### 4.2.1.1 Parkland and scattered trees A3

There is an area of amenity grassland under the treeline at the north-eastern corner of the site that has some woodland influence with forbs including wood avens (*Geum urbanum*), common stitchwort (*Stellaria media*) and several species of speedwell (*Veronica sp.*).

#### 4.2.1.2 Amenity grassland (J1.2)

There are numerous areas of amenity grassland scattered throughout the site. These are dominated by grasses, creeping fescue (*Festuca rubra*), rye grass (*Lolium sp.*) and common bent (*Agrostis capillaris*) with annual meadow-grass (*Poa annua*) also abundant.

The habitat has a moderate diversity of forb species with white clover (*Trifolium repens*), dandelion (*Taraxacum sp.*), daisy (*Bellis perennis*) and greater plantain (*Plantago major*) the most abundant.

#### 4.2.1.3 Introduced shrub (J1.4)

There is a single area of introduced shrub located in the south-western corner of the site, which is dominated by bramble (*Rubus fruticosus*) and ivy (*Hedera helix*) along with some ornamental shrub species.

### 4.2.2 Flora

No protected species of flora were recorded within the site.

No invasive non-native species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were noted within the site. **Japanese knotweed (*Fallopia japonica*)** and **Himalayan balsam (*Impatiens glandulifera*)** were recorded within 1km of the site, however, it is considered unlikely that they will affect the development due to their distance from the site.

### 4.2.3 Potential to Support Protected Species

The treelines along the boundary of the site provide good commuting and foraging potential for bats.

The buildings are considered to have negligible potential, except for the Victorian building on the eastern edge of the site which has high potential. However, this building is not being affected by the development and so impacts on protected species are unlikely.

The shrub habitat and trees have some potential to support nesting birds.

Overall, the site is assessed as being of local value based on this visit in June 2017.

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#### 4.2.4 Birds Seen and Heard

Bird species seen and heard on the day of the site survey were blackbird (*Turdus merula*), wood pigeon (*Columba palumbus*) and magpie (*Pica pica*).

#### 4.3 Preliminary Ground Level Roost Assessment of Bat Trees

The results of the preliminary ground level roost assessment of bat trees are detailed in **Appendix C**. There are several trees with some degree of potential to support roosting bats (see **Figure 4.2**), including one which is considered to be of moderate to high potential that will be lost to the development (Tree 36). Others with low potential would soft felled.

---

## 5 POTENTIAL IMPACTS

The potential impacts of the proposed development are listed below. It is important to note that these impacts are based on the general current proposals, which are preliminary, and may be refined at a later stage when detailed proposals have been developed. Detailed impact assessment will also depend on the outcome of further surveys at the site.

### 5.1 Habitat loss

The site consists mainly of amenity grassland which is of low ecological value, but there is a small patch of introduced shrub and some mature trees which are of value to breeding birds and commuting/foraging bats.

In the absence of mitigation, this impact is considered to be **Slight Adverse**.

### 5.2 Impacts on bats

The boundary treelines may be used as navigation routes by commuting bats. The loss of such habitats may disrupt flight lines and reduce foraging habitat for bats in the vicinity, although most of the treelines are being retained which will reduce this impact.

Common pipistrelle and noctule roosts and have been recorded within 1km of the site. There are four trees with bat roost potential, which are to be lost to the development, one of which has moderate to high potential for bat roosting (Tree 36) (see Figure 4.2 and Appendix C) and three which have low potential.

In the absence of mitigation and further survey data, this impact is considered to be **Slight Adverse**.

### 5.3 Impacts on breeding birds

The clearance of shrub and felling of trees on site may result in the loss of, or damage to, birds' nests and eggs, if such works are conducted during the breeding season.

In the absence of mitigation, this impact is considered to be **Slight Adverse**.



---

## 6 RECOMMENDATIONS FOR FURTHER SURVEYS AND ASSESSMENTS

### 6.1 Bat surveys

As the treelines on site are considered to have foraging and commuting potential for bats and are within 1km of known roosts for noctule and common pipistrelle, it is recommended that tree number 36 is surveyed (emergence survey) on 2-3 separate occasions, to determine presence or absence of bats using the tree as a roost. These emergence surveys should be undertaken during the active season, prior to hibernation. One of these surveys would be required to be undertaken prior to the end of August and the other/s before the end of September. If this is not possible then the surveys should wait until the following season so that the maternity roosting period is covered. The three other trees which have low bat roosting potential (See figure 4.2) should be soft felled under supervision of a qualified licensed bat ecologist.

## 7 GENERAL MITIGATION RECOMMENDATIONS

### 7.1 Recommendations for bats

Where possible, hedgerow and treeline habitats on site should be left undisturbed, as these may provide important commuting and foraging opportunities for bats in the area.

Emergence surveys to be undertaken to determine presence/absence of bats within the roosting features of tree 36. These will inform whether the tree is used by roosting bats, and therefore, if a European Protected Species Licence (EPSL) will be required to remove it.

In order to mitigate for the loss of potential roost features in tree number 36, five bat boxes (2F Schwegler General Purpose Bat Box) should be erected on tall trees around the site.

### 7.2 Recommendations for nesting birds

Where possible, above-ground vegetation clearance should be carried out in habitats suitable for nesting birds, such as woodland and scrub, outside the bird nesting season (which runs from March to August inclusive). However, if work is to be undertaken during the breeding bird season, further survey of the tree and shrub areas to be removed will be required. If these surveys highlight the presence of breeding birds, a buffer of 10m of vegetation should be maintained around the nest location (where such vegetation exists), and an appropriate exclusion zone (to be defined by the site ecologist, depending on the disturbance sensitivity of the species) should be marked out by the on-site ecologist, where site staff and machinery may not enter. The vegetation buffer and exclusion zones should be kept in place until such time as the young have fledged.

### 7.3 General Recommendations

Environmentally-friendly horticultural techniques should be used in landscape proposals, such as use of peat free materials, minimal use of herbicides and pesticides, and selection of plants that require minimal watering.

Tree protection fencing should be installed around retained trees situated in the north-east corner of the site, within the designated site compound area. This fencing should be maintained throughout the works to ensure these trees are not damaged.

## 8 RECOMMENDATIONS FOR ENHANCEMENT

The following measures could be considered in order to enhance the site for wildlife:

- Creation of a wildflower meadow with a native seed mix.
- As part of landscaping proposals, planting of native tree and shrub species, particularly species beneficial for pollinators such as guelder rose (*Viburnum opulus*) and dog rose (*Rosa canina*) or late-flowering non-native plants such as Michaelmas daisy (*Aster novi-belgii*).
- Erection of bird boxes on retained trees or on the new buildings.

## 9 REFERENCES

Chandler, P.J., 1998, Checklists of Insects of the British Isles (New Series) Part 1: Diptera. Handbooks for the Identification of British Insects, 12, 1-234." Published by the Royal Entomological Society.

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Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3<sup>rd</sup> edn).

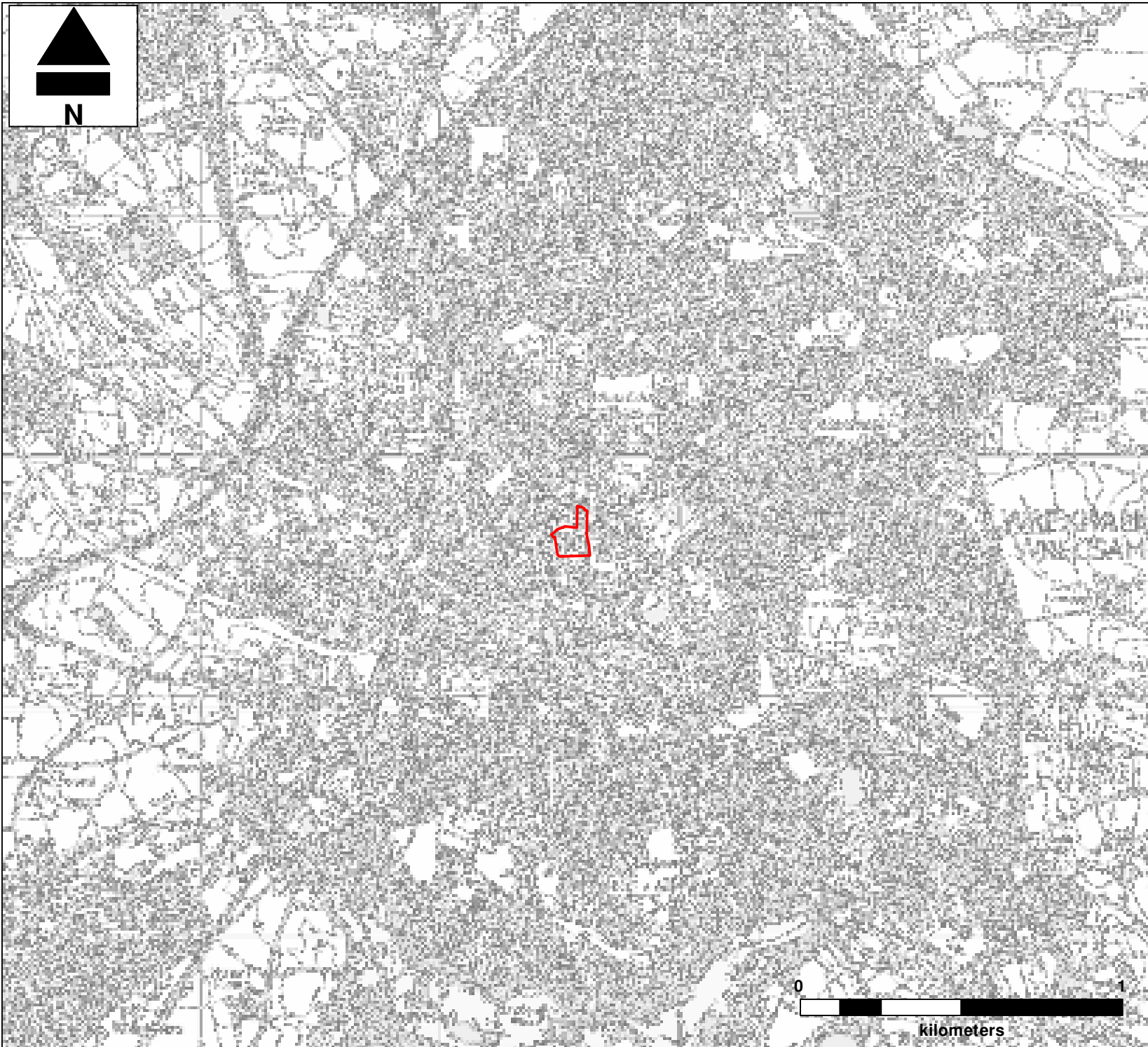
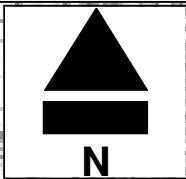
RSPB (2009). *The Population Status of Birds in Wales 2*. Cardiff: RSPB.

## 10 FIGURES

**Figure 2.1: Site Location**

**Figure 4.1: Environmental Designations**

**Figure 4.2: Habitat Map**



**Legend**

 Site Boundary

Notes



**Coleg Cambria, Grove Park  
Site Location**

Drawn: JH

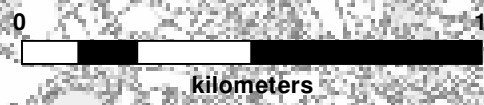
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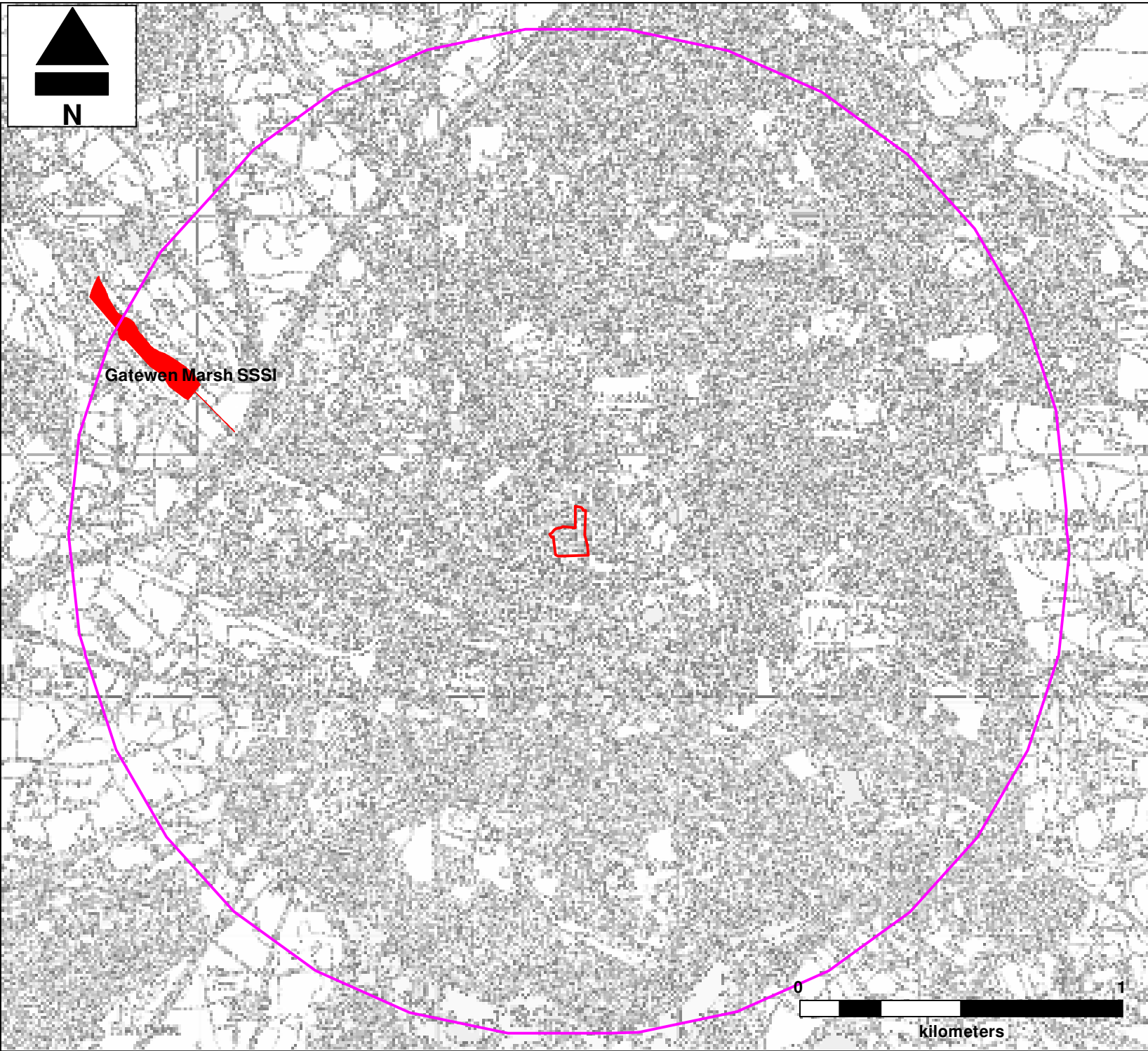
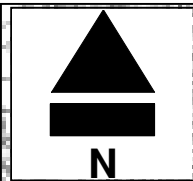
Not to Scale

Date: 04/08/17




Figure / Drawing No. 2.1

Rev: 0

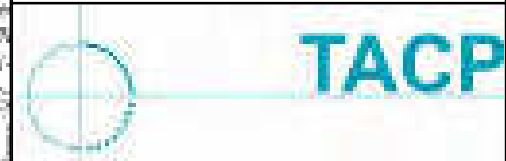




**Legend**

-  Site Boundary
-  2km Buffer
-  Site of Special Scientific Interest (SSSI)

Notes



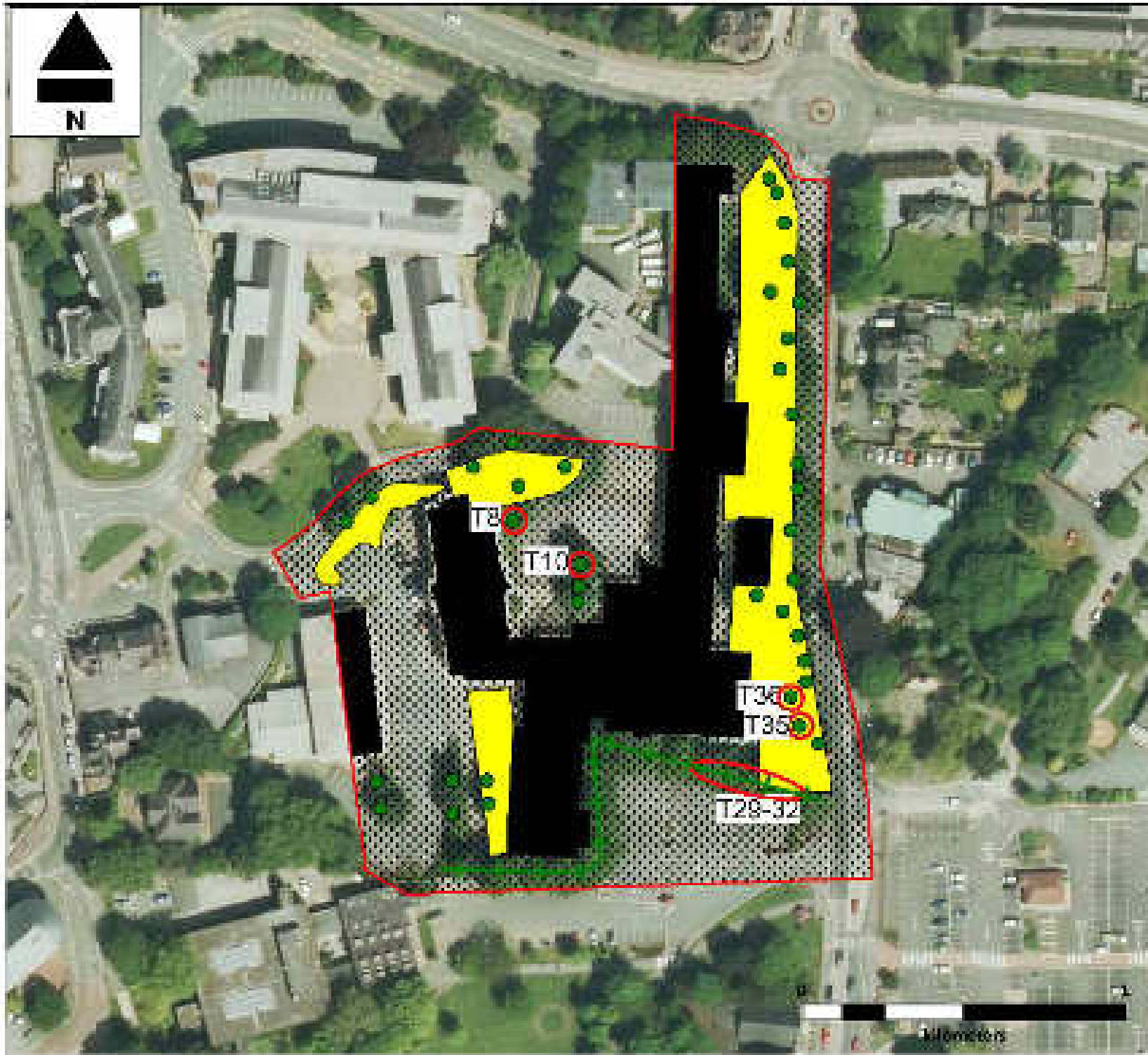
**Coleg Cambria, Grove Park  
Environmental Designations**

Drawn: JH      Checked: PMcC

Not to Scale      Date: 04/08/17

Figure / Drawing No. 4.1      Rev: 0





**Legend**

- Site Boundary
- Habitats**
- Amenity grassland
- Buildings
- Bare ground
- + Tree line
- Scattered Trees
- Trees with lost root potential

Notes:



**Coleg Cambria, Grove Park  
Phase 1 Habitat Map**

Drawn: JH	Checked: PMcL
Not to Scale	Date: 27/07/18
Figure Drawing No: 42	Rev: 0

## APPENDICES

## APPENDIX A

### Plans of Site Proposals



General Notes  
 1. Contractor to verify all dimensions and check level datum on site  
 2. All of the designs are the sole property of TACP Architects Ltd and may not be used without their written agreement  
 3. All prints, specifications and their copyright are the property of TACP Architects Ltd  
 4. Do not scale off drawings  
 5. All dimensions shall be checked on site before commencement of shop drawings, manufacture and all discrepancies must be reported to TACP Architects Ltd

- KEY**
- Existing trees to be retained
  - Landscaped Area
  - Paving
  - Tarmacadam
  - Application Boundary
  - Site Ownership Boundary

Risk Assessments

Rev	Date	Description	By	Check
P1	11-06-18	Issued for pre-planning application consultation	JH	DM

Consultants



Client  
 Wynne Construction for Coleg Cambria

Project Title  
 Yale Campus Redevelopment

Drawing Title  
 Existing Site Plan

Scale: 1:200@A0  
 Date: 17/10/17  
 Drawn By: KM  
 Checked By: MG  
 Office: Wrexham

Job Number: 16082  
 Project: YCR - TACP- PS- XX- DR- A- 001  
 Revision: P1

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General Notes  
 1. Contractor to verify all dimensions and check level datums on site  
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- KEY**
- Trees to be Felled
  - Existing trees to be retained
  - Proposed trees
  - Landscaped Area
  - Paving
  - Tarmacadam
  - Application Boundary
  - Site Ownership Boundary
  - Proposed New Building



Risk Assessments

Rev	Date	Description	By	Check
P1	11-06-18	Issued for pre-planning application consultation	JH	DM

Revisions

Rev	Date	Description	By	Check
P1	11-06-18	Issued for pre-planning application consultation	JH	DM

Consultants

Client  
 Wynne Construction for Coleg Cambria


Project Title  
 Yale Campus Redevelopment

Drawing Title  
 Proposed GA Site Layout

Scale 1:200@A0 Date 29-05-17 Drawn By JH Checked By KA Wrexham

Job Number 16082 Project YCR -TACP- PS- XX- DR- A- 701 Revision P1

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## APPENDIX B

### Target Notes

## TN1 Amenity Grassland

Well-maintained Amenity Grassland. Some scattered trees.



Figure 1. Amenity Grassland (TN1)

Table 1. Species List for TN1

Latin Name	Common Name	Abundance
<i>Acer pseudoplatanus</i>	Sycamore	O
<i>Agrostis capillaris</i>	Common Bent	D
<i>Bellis perennis</i>	Daisy	O-LF
<i>Cerastium fontanum</i>	Common Mouse-ear	R
<i>Cirsium vulgare</i>	Spear Thistle	O*
<i>Festuca rubra</i>	Creeping Fescue	D
<i>Galium aparine</i>	Cleavers	R*
<i>Lolium perenne</i>	Perennial Rye-grass	F
<i>Medicago lupulina</i>	Black Medick	F-LA
<i>Mycelis muralis</i>	Wall Lettuce	O*
<i>Plantago lanceolata</i>	Ribwort plantain	R
<i>Plantago major</i>	Greater Plantain	O-LF
<i>Prunella vulgaris</i>	Selfheal	LF
<i>Ranunculus repens</i>	Creeping Buttercup	R
<i>Rhytidiadelphus squarrosus</i>	Springy Turf-Moss	LA
<i>Senecio jacobaea</i>	Common Ragwort	R
<i>Sonchus asper</i>	Prickly Sow-thistle	O*
<i>Taraxacum sp.</i>	Dandelion	F
<i>Trifolium repens</i>	White Clover	LF
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	O

\*Recorded on edge of habitat, by wall.

### TN2 Amenity Grassland

Another small patch of Amenity Grassland with a slightly different vegetation composition to TN1. Overgrown at the edges with some tall Willowherb (*Epilobium* spp.) and Germander Speedwell (*Veronica chamaedrys*).

**Table 2. Species List for TN2**

Latin Name	Common Name	Abundance
<i>Anagallis arvensis</i>	Scarlet Pimpernel	LA
<i>Bellis perennis</i>	Daisy	A
<i>Epilobium hirsutum</i>	Greater Willowherb	O*
<i>Epilobium ciliatum</i>	American Willowherb	O*
<i>Lolium perenne</i>	Perennial Rye-grass	D
<i>Plantago major</i>	Greater Plantain	A
<i>Prunella vulgaris</i>	Selfheal	O*
<i>Ranunculus repens</i>	Creeping Buttercup	LA
<i>Senecio vulgaris</i>	Groundsel	O*
<i>Taraxacum</i> sp.	Dandelion	O
<i>Trifolium dubium</i>	Lesser Trefoil	O
<i>Trifolium repens</i>	White Clover	O
<i>Veronica chamaedrys</i>	Germander Speedwell	O*
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	O*

\*Recorded on edge of habitat, in overgrown area.

### TN3 Amenity Grassland



**Figure 2. Amenity Grassland (TN3)**

**Table 3. Amenity Grassland (TN3)**

<b>Latin Name</b>	<b>Common Name</b>	<b>Abundance</b>
<i>Achillea millefolium</i>	Yarrow	F
<i>Agrostis capillaris</i>	Common Bent	F
<i>Bellis perennis</i>	Daisy	A
<i>Centaurea nigra</i>	Black Knapweed	LF
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Dactylis glomerata</i>	Cocksfoot	A
<i>Geranium dissectum</i>	Cut-Leaved Crane's-Bill	R
<i>Holcus lanatus</i>	Yorkshire Fog	A-LD
<i>Lolium perenne</i>	Perennial Rye-grass	A-LD
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	LA
<i>Medicago lupulina</i>	Black Medick	O-LA
<i>Potentilla reptans</i>	Creeping Cinquefoil	LA
<i>Prunella vulgaris</i>	Selfheal	F
<i>Ranunculus repens</i>	Creeping Buttercup	F-LA
<i>Taraxacum sp.</i>	Dandelion	O
<i>Trifolium dubium</i>	Lesser Trefoil	O
<i>Trifolium repens</i>	White Clover	D
<i>Urtica dioica</i>	Stinging Nettle	R
<i>Veronica chamaedrys</i>	Germander Speedwell	R
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	O
<i>Vicia sativa</i>	Common Vetch	LF

### TN4 Introduced Shrub

The grounds of the college contain scattered patches of introduced shrub with ornamental species such as cherry laurel (*Prunus laurocerasus*), barberry (*Mahonia* sp.) and ostrich fern (*Matteuccia struthiopteris*).



Figure 3. Introduced shrub

**Table 4. Species List for Introduced Shrub (TN4)**

Latin Name	Common Name
<i>Galium aparine</i>	Cleavers
<i>Hedera helix</i>	Ivy
<i>Rosa</i> sp.	Rose
<i>Rubus fruticosus</i>	Bramble
<i>Prunus laurocerasus</i>	Cherry Laurel
<i>Viburnum tinus</i>	Viburnum
<i>Mahonia</i> sp.	Barberry
<i>Matteuccia struthiopteris</i>	Ostrich fern

## TN5 Amenity Grass

Amenity grassland on eastern side of site.



Figure 4. Amenity grassland on eastern side of site.

Table 5. Species list for Amenity Grassland on eastern side of site.

Latin Name	Common Name	Abundance
<i>Achillea millefolium</i>	Yarrow	F
<i>Aesculus hippocastanum</i>	Horse Chestnut	O
<i>Agrostis capillaris</i>	Common Bent	A
<i>Bellis perennis</i>	Daisy	A
<i>Hypochaeris radicata</i>	Cat's-ear	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Plantago major</i>	Broadleaf Plantain	A
<i>Poa annua</i>	Annual Meadow-grass	A
<i>Populus alba</i>	White Poplar	O
<i>Potentilla reptans</i>	Creeping Cinquefoil	LF
<i>Prunella vulgaris</i>	Selfheal	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Taraxacum sp.</i>	Dandelion	O
<i>Trifolium dubium</i>	Lesser Trefoil	LF
<i>Trifolium repens</i>	White Clover	D
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	R

## TN5 Parkland and Scattered Trees

There is an area of amenity grassland under the treeline at the north-eastern corner of the site that has some woodland influence with forbs including wood avens (*Geum urbanum*), common stitchwort (*Stellaria media*) and several species of speedwell (*Veronica sp.*).



Figure 5. Parkland and scattered trees on eastern side of site.

Table 6. Species list for Parkland and Scattered Trees

Latin Name	Common Name	Abundance
<i>Aesculus hippocastanum</i>	Horse Chestnut	
<i>Bellis perennis</i>	Daisy	A
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Dactylis glomerata</i>	Cocksfoot	A-LD
<i>Festuca rubra</i>	Creeping Fescue	LF
<i>Geum urbanum</i>	Wood Avens	LF
<i>Hypochaeris radicata</i>	Cat's-ear	O
<i>Lolium perenne</i>	Perennial Rye-grass	A
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Plantago major</i>	Broadleaf Plantain	LF
<i>Poa annua</i>	Annual Meadow-grass	A
<i>Prunella vulgaris</i>	Selfheal	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Senecio vulgaris</i>	Groundsel	R
<i>Stellaria media</i>	Common Stitchwort	R
<i>Veronica chamaedrys</i>	Germander Speedwell	LF
<i>Veronica polita</i>	Grey Field-speedwell	LF
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	LF




## APPENDIX C




### Preliminary Ground Level Roost Assessment of Trees



Date: 26/07/2017

Surveyor: Alice Jackson

Location: Coleg Cambria, Grove Park Road, Wrexham, LL12 7AB.

Tree N°	Comments	Image
34	No bat potential	n/a
35	<ul style="list-style-type: none"><li data-bbox="347 517 560 763">• Ivy covering base of tree to approx. Diameter Breast Height (DBH).</li><li data-bbox="347 775 560 987">• Slight cracking in bark along branch on SW side of tree.</li></ul>	 <p>The image column for tree 35 contains three photographs. The top photo shows a close-up of a tree trunk covered in dense green ivy, with a grassy area and a car visible in the background. The middle photo is another close-up of the ivy-covered tree trunk. The bottom photo shows a tree branch with a visible crack in the bark, surrounded by green foliage.</p>

36	<ul style="list-style-type: none"> <li>• Cavity approx. 20cm in diameter, 5m from base of tree on S side.</li> <li>• Base of tree almost completely hollow - decay. Two entry/exit points possible. 1) 1m long gap on NW side, 2) 30cm long gap on SE side.</li> <li>• Foliage covering base of tree.</li> <li>• Moderate to high roost potential</li> </ul>	  
G3	No bat potential	n/a
19	No bat potential	n/a
18	No bat potential	n/a
12	No bat potential	n/a
11	No bat potential	n/a

10	<ul style="list-style-type: none"><li>• Multi stemmed - 2 small knots present on differing stems. 1) one on SW side, 2) one on the N side. Both approx. 7m above base of tree.</li></ul>	 Two photographs showing tree trunks with knots. The top photo shows a tree trunk with a knot on the SW side, and the bottom photo shows a tree trunk with a knot on the N side. Both knots are approximately 7m above the base of the tree.
28	<ul style="list-style-type: none"><li>• 2 small knots - possible cavities - on NW side of tree. Approx. 6m above base.</li></ul>	 A photograph showing a tree trunk with two small knots on the NW side, approximately 6m above the base. The knots are possible cavities.

29



- Cavity on branch on NW side of tree. Approx. 6m above base of tree.
- 2 knots with possible cavities. 1) 3m above base on S side, 2) 4m above base on SW side. Both approx. 5 inches in diameter.




30

- Small knot on S side of tree - possible cavity - approx. 5m above base and 2 inches in diameter.



31	<ul style="list-style-type: none"><li>• Knot with possible cavity on NW side of tree. Approx. 3m above base and 3 inches in diameter.</li><li>• Broken branch on S side. Looks just over half a meter long. Approx. 6m above base of tree.</li></ul>	
32	<ul style="list-style-type: none"><li>• 2 knots with possible cavities on N side of tree. 1) 4m above base of tree, 2) 5m above base of tree. Both approx. 1.5 inches in diameter.</li></ul>	

<p>G2 - next to 24</p>	<ul style="list-style-type: none"><li>• Extensive covering of ivy on base of tree.</li></ul>	
<p>8</p>	<ul style="list-style-type: none"><li>• Dead branch containing multiple holes. Approx. 10m above base of tree and around 1.5meters long.</li></ul>	