



Land off Valley Drive, Gravesend

Preliminary Ecological Appraisal

16th November 2018

Client	Potter Raper Partnership
Job name	Land off Valley Drive, Gravesham
Report title	Preliminary Ecological Appraisal
File reference	18_1435_Report_MF_NR

	Name	Position	Date
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1 Introduction

1.1 Site Description

The site is located off Valley Drive, in the southern part of Gravesend, in the County of Kent at approximate postcode DA12 5SU. The site, which is estimated to be around 0.6 hectares in size, is centred on Ordnance Survey grid reference TQ 657 715 and comprises five blocks of flats (36 no. units), along with communal garden areas and garages to the rear.

The land surrounding the site is suburban in character, containing residential and commercial properties, roads, amenity grassland, scattered trees and woodland. The site and surrounding area are illustrated in aerial images provided in Appendix 1 and photographs of the site are provided in Appendix 2.

1.2 Proposed Works

It is understood that the proposed works are the subject of a planning application to Gravesham Borough Council, the Local Planning Authority (LPA), for the demolition of existing buildings and the construction of 2 no. buildings that comprise an over 55's block of 32 no. units and a general needs block comprising 16 no. units with associated parking and landscaping.

1.3 Aims of Study

To inform the planning application, GreenLink Ecology Ltd. was commissioned to conduct a preliminary ecological appraisal (PEA) of the site, to identify what habitats are present and look for any evidence of, or potential for, protected/notable species.

The aims of this report are to present the results of the survey, describe the habitat characteristics of the site, assess the potential for the proposed works to impact on protected/notable species, discuss the need for further survey work and make recommendations for mitigation/enhancement measures, to comply with legislation and planning policy.

2 Methodology

A survey was undertaken on 12th November 2018 by experienced consultant ecologist Marcus Fry MCIEEM¹, in accordance with the published guidelines^{2/3}. The native plant species and habitat types present were identified and any evidence of, or potential for, protected/notable species and their habitats was recorded. On the day of the survey, the weather conditions were sunshine with scattered cloud and the temperature at midday was around 13°C.

In addition, the Multi Agency Geographic Information for the Countryside (<http://magic.defra.gov.uk>) database was accessed for information relating to statutory designated sites from within the surrounding area.

¹ Member of the Chartered Institute of Ecology and Environmental Management (Full)

² JNCC, (1990), Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit, Revised Reprint 2007

³ CIEEM (2012) Technical Guidance Series – Guidelines for Preliminary Ecological Appraisal. Institute of Ecology and Environmental Management, May 2012.

3 Results

3.1 Habitat Description

The site contains blocks of flats and garages, which are considered in a subsequent section, along with communal garden areas that contain amenity grassland, hard standing, miscellaneous planting, ruderal vegetation and scattered trees.

The amenity grassland is the dominant habitat type and is species-poor in composition, with perennial rye-grass (*Lolium perenne*), daisy (*Bellis perennis*), dandelion (*Taraxacum officinale*), clover (*Trifolium repens*), buttercup (*Ranunculus* sp.) and yarrow (*Achillea millefolium*) recorded as present. This is a habitat type of low ecological value.

There are hard standing footpaths throughout the site, along with an access drive/car parking to the north at Mike Spring Court. This represents an artificial habitat that is of inherently low ecological value.

Small amounts of miscellaneous planting, comprised predominantly of non-native ornamental species, are present to the north at Mike Spring Court and also in locations throughout the overall site. This is a habitat type of low ecological value, although some of the larger shrubs have the potential for use by breeding birds, as described in a subsequent section.

Ruderal vegetation is present on the site's western boundary and in unmanaged beds adjacent to the buildings, with species present including bramble (*Rubus fruticosus*), dock (*Rumex* sp.), cleavers (*Galium aparine*), wood avens (*Geum urbanum*) and common nettle (*Urtica dioica*). This is a habitat type of low ecological value, although some of the more established bramble on the site's western boundary has the potential for use by breeding birds, as described in a subsequent section.

There are three mature non-native Japanese pagoda trees (*Styphnolobium japonicum*) trees within the amenity grassland in the front of the site, along with elder (*Sambucus nigra*), lime (*Tilia x europaea*), non-native conifers, sycamore (*Acer pseudoplatanus*), silver birch (*Betula pendula*) and willow (*Salix* sp.) on/close to the western boundary (beyond a retaining wall) and to the north at Mike Spring Court. The three Japanese pagoda trees are considered likely to be of moderate arboricultural value, whilst the other trees are considered to be of low/negligible arboricultural value. It is unknown and beyond the scope of this report to establish whether these trees are covered by a Tree Preservation Order (TPO).

None of the plants recorded during the survey are protected/notable species and they do not constitute habitats that are of conservation concern.

3.2 Protected/Notable Species

3.2.1 Bats

Since the proposals include the demolition of the blocks of flats and garages, which could directly impact upon bats, if present, these were assessed externally by Natural England licence holder Marcus Fry (no. 2015-10955-CLS), for any evidence of, or potential for bats. Features and evidence considered during the survey included:

- Roof and wall construction;
- Features that have the potential to be actual bat roosts or provide access to roosting opportunities within the buildings; and

- Scattered or accumulated bat droppings (identified by their dry, powdery texture when compressed), oily staining, scratch marks and/or urine staining around entrances to potential roosts.

In summary, there was no evidence of bats recorded in association with the blocks of flats and garages and overall, only limited bat roost potential was identified in relation to the flats, where there are low numbers of missing/damaged roof tiles, holes in soffits/fascias and areas of missing mortar.

Since it is understood that all on-site trees will be removed to facilitate the development, these were assessed by a Natural England licence holder (no. 2015-10955-CLS) and categorised (to align with BS 8596:2015 "Surveying for Bats in Trees and Woodland") in accordance with the 2016 Bat Conservation Trust's (BCT) published guidance⁴:

- Negligible potential – Unlikely to be used by roosting bats.
- Low potential – A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only limited roosting potential
- Moderate potential – A 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 significance.
- High potential – A 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 longer periods of time due to their size, protection, conditions and surrounding habitat.

In summary, the three Japanese pagoda trees within the amenity grassland in the front of the site have been categorised as having 'low' potential for use by roosting bats on account of their maturity and limited lifted bark on one dead branch. All other trees, including a dead stem in the northern part of the site, have been categorised as having 'negligible' potential for use by roosting bats. Overall, the site is considered to have limited potential for use by commuting/foraging bats due to an absence of suitable habitat types.

3.2.2 Breeding Birds

There was no evidence for actively breeding birds recorded during the survey, which was undertaken outside the breeding season (March-July/August), although inactive nests were identified in some of the mature trees. In addition, the trees, larger shrubs within the miscellaneous planting and more established scrub vegetation on the western boundary do represent potentially suitable habitats for seasonal use by nesting birds.

3.3 Designated Sites

According to the Multi Agency Geographic Information for the Countryside database, the closest statutory designated site for nature conservation is circa 1.7 kilometres to the south-east of the proposed development site, which is Shorne and Ashenbank Woods Site of Special Scientific Interest (SSSI).

⁴ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, Bat Conservation Trust (3rd Edition)

4 Assessment

4.1 Constraints

The survey work was undertaken by an experienced consultant ecologist using standard survey techniques and in accordance with the published guidelines. However, it was not possible to access any of the flat's roof voids to look for evidence of/potential for bats and it is therefore considered that this was a partial constraint to the PEA. To address this, further survey work is recommended in a subsequent section.

4.2 Potential Impacts

4.2.1 Habitats

The site is dominated by common/widespread habitat types that are not of conservation concern and impacts to these habitats are considered insignificant. Whilst there will be a loss of mature trees that are considered likely to be of moderate arboricultural value, this is unavoidable given the proposed layout and can be partially offset via replacement planting post-construction. Although there are off-site trees close to the western boundary, these are on land that is raised up above the site and beyond a retaining wall, hence they should be unaffected by the proposals.

4.2.2 Protected/Notable Species

4.2.2.1 Bats

Although there was no evidence of bats recorded during the survey, it was not possible to access any roof voids and 'low' roosting potential was identified in relation to some parts of the roof areas.

Therefore, the demolition of the buildings could result in direct impacts to bats through disturbance, injury or mortality and the destruction of actual roost sites, all of which would be an offence against the legislation.

To address the partial constraint relating to a lack of access to roof voids and 'low' roosting potential associated with parts of the roof areas, further survey work is recommended in a subsequent section, to determine the need of mitigation measures.

Since the three Japanese pagoda trees in the front of the site have been categorised as having 'low' potential for use by roosting bats and the site is considered to have limited potential for use by commuting/foraging bats, it is unlikely that the removal of trees would have a direct or indirect impact on bats.

The proposed works could actually have a positive impact for bats through the provision of wall-integrated bat boxes on the new buildings.

4.2.2.2 Breeding Birds

Although no evidence for actively breeding birds was recorded during the survey, which was undertaken outside the breeding season, inactive nests and potentially suitable habitats for use by nesting birds during the breeding season was identified throughout the site, which will be removed to facilitate the proposed works.

Therefore, breeding birds could be directly impacted on by the proposed works, if undertaken during the breeding season (March-July/August, as a guide). To avoid the seasonal risk of impacts to breeding birds, precautionary mitigation measures are recommended in a subsequent section.

The proposed works could actually have a positive impact for birds through the provision of wall-integrated bird boxes on the new buildings.

4.2.3 Designated Sites

Since the closest statutory designated site is located circa 1.7 kilometres to the south-east of the proposed development site and buffered from it by substantial areas of land, it is considered that there is no perceived risk of potential impacts to designated sites as a result of the proposed works.

4.3 Legislation and Policy

4.3.1 Bats

All species of bat and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended by the CROW Act 2000), and by the Conservation of Habitats and Species Regulations 2010, which consolidates all the various amendments made to the Conservation (Natural Habitats, &c.) (Amendments) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

The legislation makes it illegal under the Wildlife and Countryside Act 1981 (as amended) to:

- Intentionally or recklessly kill, injure or take a wild bat;
- Be in possession or control of any live or dead wild bat, or any part of, or anything derived from a wild bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a wild bat uses for shelter or protection; and
- Intentionally or recklessly disturb any wild bat while it is occupying a structure or place that it uses for shelter or protection.

Bats are also European Protected Species (EPS). As such under the Conservation of Habitats and Species Regulations 2010 it is an offence to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species;
- Deliberately disturb wild animals of any such species. Disturbance of animals includes in particular any disturbance which is likely to:
 - impair their ability -
 - to survive, to breed or reproduce, or to rear or nurture their young;
 - or
 - in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - to affect significantly the local distribution or abundance of the species to which they belong;
- Deliberately take or destroy the eggs of such an animal; or
- Deliberately damage or destroy a breeding site or resting place of such an animal.

4.3.2 Breeding Birds

Breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally or recklessly kill, injure or take any wild bird or take, damage or destroy its nest whilst it is in use or being built, or to take or destroy its eggs. In addition, some species of bird are listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), for which there are additional offences of disturbing these birds at their nests, or their dependent young.

4.3.3 National Planning Policy Framework

The Government published the National Planning Policy Framework (NPPF) in 2012, which replaced previous policy documents, including Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation. The NPPF states that when determining planning applications, LPAs should aim to conserve and enhance biodiversity by encouraging opportunities to be taken for the incorporation of biodiversity in and around developments.

5 Recommendations

5.1 Further Survey

5.1.1 Bats

To inform the need for mitigation measures, a dusk emergence/dawn re-entry survey should be undertaken for the flats buildings in accordance with the 2016 BCT guidance.

This would involve experienced/licensed surveyors observing opposite aspects of the buildings at dusk/pre-dawn, using bat detectors to record any emerging/re-entering bats, to determine the species and numbers of individuals present and establish the roost status.

This survey work should be conducted under suitable climatic conditions during the optimal seasonal period, which is April/May to August/September.

5.2 Mitigation Measures

5.2.1 Habitats

Mitigation measures are not considered necessary for the habitats since it is understood that the site will be entirely cleared to facilitate the development and that the off-site trees to the west will be unaffected by the proposals.

5.2.2 Protected/Notable Species

5.2.2.1 Bats

The full details of mitigation measures (if required) for bats will be determined further to the completion of the further survey work recommended above in Section 5.1.1.

If bats are recorded as present, a mitigation licence would need to be obtained from Natural England once planning permission has been granted and all relevant conditions discharged. The implementation of the mitigation measures may need to be seasonally timed to avoid periods of the year when bats are particularly vulnerable to impacts (e.g. avoiding summer, when bats form maternity colonies and winter, when bats hibernate).

As a guideline, mitigation measures are likely to include exclusion of bats from the buildings and subsequent dismantling of the relevant areas under the direct supervision of an appropriately experienced/licensed ecologist, prior to demolition.

5.2.2.2 Breeding Birds

The clearance of potentially suitable breeding habitat should ideally be undertaken outside of the breeding bird season (avoiding March-July/August). If it is necessary to conduct this work during the breeding season, it should be carried out under the supervision of an experienced ecologist, who will check the habitats for the presence/absence of any birds' nests.

If any active nests are found then works with the potential to impact on the nest must cease and an appropriate buffer zone should be established until the young have fledged and the nest is no longer in use.

5.2.3 Designated Sites

Since it is considered that there is no significant risk of impacts to designated sites as a result of the proposed works, mitigation measures are not required for designated sites.

5.3 Enhancement Measures

To ecologically enhance the site in accordance with the principles of the NPPF (Section 4.3.3), the following guideline measures should be implemented:

- The soft landscaping scheme for the site that is being developed by ME Landscaping should specify at least 60% native species of plant, or non-native species with a known benefit to wildlife. This should include a variety of flowering plants, shrubs, climbers, hedgerows and small trees, to provide a diversity of habitat type/structure and benefit local biodiversity;
- The new buildings should incorporate at least 5 no. wall-integrated bat boxes (<http://www.birdbrickhouses.co.uk/brick-nesting-boxes/bat-box/>), which should ideally be installed at least four metres from ground level on the gable ends and not illuminated by artificial lighting; and
- The new buildings should incorporate at least 10 no. wall-integrated bird nesting boxes (<http://www.birdbrickhouses.co.uk/brick-nesting-boxes/nesting-boxes/>), which should be installed at least three metres from ground level on the gable ends, although in the absence of shade, none of these boxes should be facing due south, to avoid over-heating during the summer months.

6 Conclusions

To inform a planning application, GreenLink Ecology Ltd. was commissioned to undertake a PEA for the site, which has been conducted with only partial constraint.

The PEA survey that was undertaken by an experienced consultant ecologist, determined that the site is dominated by habitats that are of low ecological value. In relation to habitats, mitigation measures are not considered necessary, since the site will be entirely cleared and the off-site trees should be unaffected.

During the survey, there was no evidence of bats recorded, although it was not possible to access any of the roof voids and 'low' potential was identified in relation to the parts of the roof areas. To inform the need for mitigation measures in relation to bats, further survey work is recommended.

Although no evidence for actively breeding birds was recorded during the survey, inactive nests were identified and the site contains potentially suitable habitats for use by nesting birds during the breeding season. Therefore, mitigation measures have been recommended on a precautionary basis to avoid the risk of seasonal impacts to breeding birds.

Although there is a designated site for nature conservation in the local area, there is no perceived risk of impacts as a result of the proposed works and therefore, no need for mitigation measures.

In accordance with the NPPF, recommendations have also been made for ecological enhancement measures to benefit local biodiversity, in particular habitats, bats and breeding birds.

Overall, there are no known overriding ecological constraints that would prevent the proposed works going ahead, subject to the recommendations made in this report being correctly implemented.

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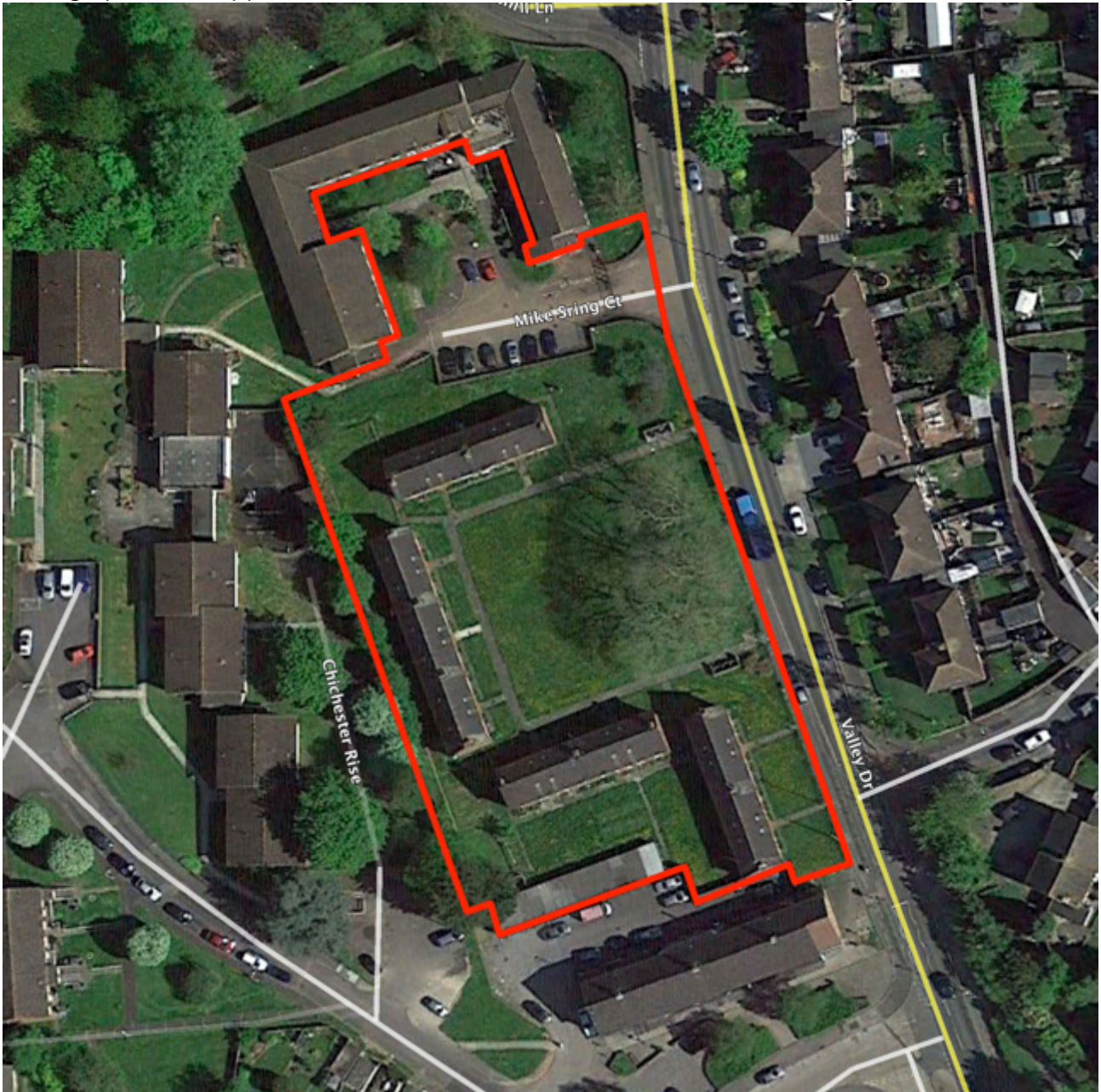
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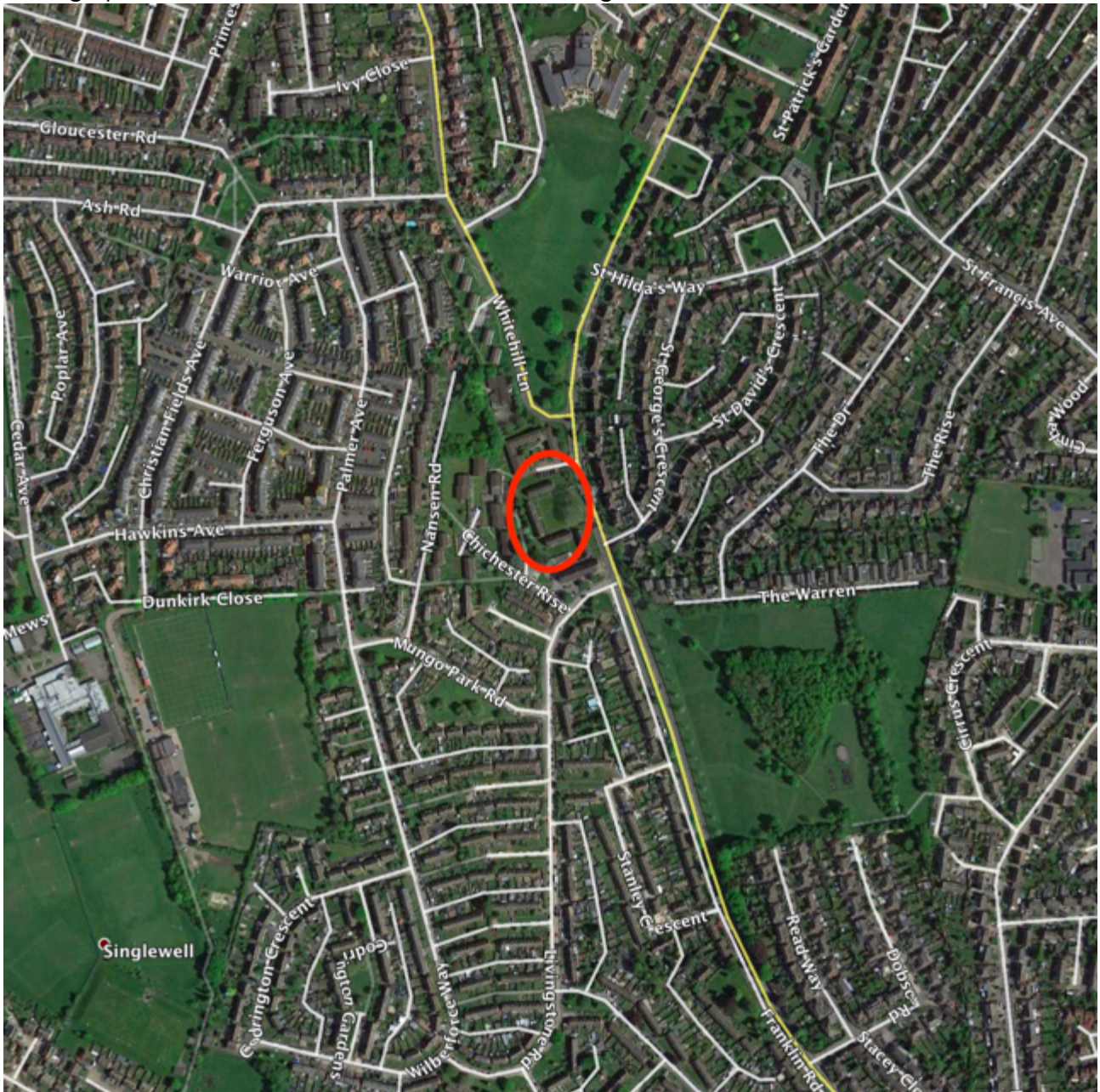
8 Appendices

Appendix 1: The site location and surrounding area

Photograph 1: The approximate site boundaries and immediate surrounding area



Photograph 2: The site location and wider surrounding area



Appendix 2: Photographs of the site

Photograph 1: Southern part of the site, illustrating garages and flats buildings



Photograph 2: Illustrating the off-site lime trees, raised above the site and beyond a retaining wall



Photograph 3: Front of the site, looking south



Photograph 4: Front of the site, looking west



Photograph 5: Northern part of the site, looking west



Photograph 6: Southern part of the site, looking east



Photograph 7: Western part of the site, looking north



Photograph 8: Northern part of the site, within Mike Spring Court

