Habitats of Principal Importance

1.8 Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and sub-tidal sands and gravels.

Species of Principal Importance

1.9 There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the Hen Harrier has also been included on the list because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

1.10 In accordance with Section 41(4) the Secretary of State will, in consultation with Natural England, keep this list under review and will publish a revised list if necessary.

National Planning Policy Framework

1.11 The National Planning Policy Framework (NPPF) was published in March 2012 and replaces previous planning policy guidance (PPS 9) on biodiversity. NPPF states the following in relation to biodiversity and planning:

1.12 "When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm 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;*
- *proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have 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 proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- *opportunities to incorporate biodiversity in and around developments should be encouraged;*
- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged*

or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and

- *the following wildlife sites should be given the same protection as European 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 European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

1.13 The presumption in favour of sustainable development does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined."

Bat Legislation

Wildlife & Countryside Act

1.14 The Wildlife and Countryside Act 1981 (as amended) provides the main legal framework for nature conservation and species protection in the UK. All UK native species of bat are listed in Schedule 5 of the WCA. The legislation protects bats and their roosts under Section 9 of the Act, such that it is an offence to:

- Intentionally kill, injure or take a bat
- Possess, control or sell any live or dead specimen or anything derived from a bat
- Intentionally damage, destroy or obstruct access to any structure or place used for shelter or protection (i.e. a roost) by a bat
- Deliberately, or intentionally disturb a bat while it is occupying a roost

The Habitats Directive (1992)

1.15 The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC) aims to protect the European Union's biodiversity. It requires member states to provide strict protection for specified flora and fauna (i.e. European Protected Species) outside of designated sites.

Conservation of Habitats and Species Regulations (SI 2010/490)

The Conservation of Habitats and Species Regulations formally transpose the requirements of the Habitats Directive into national law. They build on existing nature conservation legislation for the protection of habitats and species by introducing requirements for assessing plans and projects affecting European designations and licensing certain activities affecting European Protected Species. All bat species are listed as 'European protected species of animals'.

1.16 Licences to permit illegal activities relating to bats and their roost sites can be issued for specific purposes and by specific licensing authorities in each EU country under the auspices of the of Conservation of Habitats and Species Regulations. These are sometimes

called 'derogation licences' or 'European Protected Species' (EPS) licences, and in England, are issued by Natural England.

2 Breeding Birds

Background

2.1 The chapter details the results of a three visit breeding bird survey completed of all land areas within **Figure 1.1**.

Planning Context

2.2 All UK species of wild bird, their nests and eggs are protected by law (for the whole or part of the year) by the Wildlife and Countryside Act 1981 (as amended and strengthened by the Countryside and Rights of Way (CROW) Act 2000). The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006), or
- take or destroy an egg of any wild bird.

Schedule 1 Species

2.3 Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds. The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.

Population Status

2.4 The population status of birds regularly found in the UK, Channel Islands and the Isle of Man is reviewed every five years to provide an up-to-date assessment of conservation priorities[1]. A total of 247 species has been assessed and placed onto one of three lists of Conservation Concern: Red, Amber and Green. Forty species are Red-listed, 121 are Amber-listed and 86 are Green-listed.

2.5 Seven quantitative criteria are used to assess the population status of each species and to place it on the Red, Amber or Green list. These are: global conservation status, recent decline, historical decline, European conservation status, rare breeders, localised species and international importance.

[1] Gregory, R D; Wilkinson, N I; Noble, D G; Robinson, J A; Brown, A F; Hughes, J; Procter, D A; Gibbons, D W and Galbraith, C A (2002) The Population Status of Birds in the United Kingdom, Channel Islands and Isle of Man: an Analysis of Conservation Concern 2002-2007. British Birds 95: 410-450

- Red-listed species are those that are Globally Threatened according to the IUCN criteria; those whose populations or ranges have declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
- Amber-listed species are those with an unfavourable conservation status in Europe; species whose populations or ranges have declined moderately in recent years; those whose populations have declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
- Green-listed species are those that do not fulfil any of the Red- or Amber-list criteria and they are not considered to be of particular conservation concern.

The Birds Directive

2.6 The European Union meets its obligations for bird species under the Bern Convention and Bonn Convention and more generally by means of Directive 2009/147/EC (Birds Directive) on the conservation of wild birds (the codified version of Council Directive 79/409/EEC as amended). The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. It sets broad objectives for a wide range of activities, although the precise legal mechanisms for their achievement are at the discretion of each Member State (in the UK delivery is via several different statutes).

2.7 The main provisions of the Directive include:

- The maintenance of the populations of all wild bird species across their natural range (Article 2) with the encouragement of various activities to that end (Article 3).
- The identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance (Article 4). (Together with Special Areas of Conservation designated under the Habitats Directive, SPAs form a network of European protected areas known as Natura 2000).
- The establishment of a general scheme of protection for all wild birds (Article 5).
- Restrictions on the sale and keeping of wild birds (Article 6).
- Specification of the conditions under which hunting and falconry can be undertaken (Article 7). (Huntable species are listed on Annex II of the Directive).
- Prohibition of large-scale non-selective means of bird killing (Article 8).
- Procedures under which Member States may derogate from the provisions of Articles 5-8 (Article 9) — that is, the conditions under which permission may be given for otherwise prohibited activities.
- Encouragement of certain forms of relevant research (Article 10 and Annex V).
- Requirements to ensure that introduction of non-native birds do not threatened other biodiversity (Article 11).

Survey Approach

Breeding Bird Survey

2.8 A breeding bird survey (BBS) was conducted by experienced ornithologist and Senior Ecologist from AEL, Dr Paul Tinsley-Marshall MCIEEM. Paul has over eight years professional ornithological experience, including conducting and managing breeding and wintering bird surveys for The Wildlife Trusts, and in addition holds a British Trust for Ornithology (BTO) licence to trap and ring birds for scientific purposes.

2.9 A standardised BBS methodology[2] was used as the basis for the survey, with three separate survey visits conducted during the recognised bird breeding period in 2014.

2.10 The survey visits were conducted on 25th June, 30th June and 10th July 2014 in good visibility and weather conditions that were suitable for birds to be active as follows:

- 25 June – 19.0-24.0°C, 50% cloud cover, light wind, no rain
- 30 June – 16.0-19.0°C, 50% cloud cover, gentle breeze, no rain
- 10 July – 18.0-22.0°C, 100%, cloud cover, gentle breeze, no rain

2.11 The survey route was planned to bring the surveyor to within at least 25 m, and typically 5 m or less, of all wooded and scrub and shrub-covered parts of the site. Approach to within this distance of more open areas of grassland was deemed to be less critical because birds in such conditions are more easily seen and heard than those in more enclosed habitats and many bird species are more often seen during the breeding season in association with woodland and scrub vegetation.

2.12 The survey route followed the internal perimeters of the red line site boundary and external perimeters of most buildings, with particular attention paid to the north stand of the Harlequins stadium at the request of Cascade Consulting. The route was such that total coverage of the site was achieved and therefore considered to be more than sufficient to fully record the birds present.

2.13 Each survey commenced at around 8am in order to coincide with the main period of bird activity each day. The route was walked slowly, with frequent stops, and all species seen and heard were identified and recorded on field maps using the BTO two-letter code nomenclature.

2.14 Every effort was made, using the surveyor's judgement and the BTO field recording methodology, to record any individual bird once only, and from where the survey route passed closest to the bird's observed position.

2.15 All species of bird detected by both sight and sound were recorded on field maps using the BTO two-letter code nomenclature.

2.16 Particular attention was paid to bird species of conservation concern that have adapted to live in urban environments, such as the amber listed black redstart.

[2] Gilbert, G., Gibbons, D.W. & Evans, J (1998) *Bird Monitoring Methods: a manual of techniques for key UK species*. RSPB, Sandy, Bedfordshire.

Survey Findings

2.17 A total of 33 bird species were recorded over the three survey visits, including three Red-listed and seven Amber-listed species, details of which are found in **Table 2.1**, listed in descending order of peak recorded abundance.

2.18 The surveyed area comprised three main types of habitat: 1) the College buildings and grounds; 2) open areas consisting of amenity grassland and hard standing; and 3) vegetated areas of trees, shrubs and scrub. Most of the bird interest was found in association with the vegetated areas, with very little interest in the open amenity areas (see **Figure 2.1**), and less still in association with the College buildings and grounds. The College buildings were utilised only by feral pigeons, carrion crows and magpies. The College grounds were utilised by a range of typical garden species such as robin, blackbird, wren, blue tit, great tit and greenfinch. Open areas of amenity grassland were used by wood pigeons, stock dove, starling and blackbird, while the majority of species utilised vegetated areas. The two rivers on site, the River Crane in the south, and the Duke of Northumberland's River in the north held specialist wetland associated species including grey wagtail and moorhen.

2.19 The Red-listed species recorded were herring gull, house sparrow, and starling. The Amber-listed species recorded were dunnock, whitethroat, grey wagtail, mistle thrush, stock dove, swift and black-headed gull.

2.20 Swift, cormorant, herring gull and black-headed gull were not considered likely to be breeding on site having been recorded only as overflying foraging or commuting individuals, or as incidental observations of birds in unsuitable breeding habitat. All other species were considered breeding or potentially breeding on-site.

2.21 **Table 2.1** shows that in general terms, the survey area supported a typical bird community of an urban environment with open green spaces. Species such as wood pigeon, starling, wren, blue tit, great tit, blackbird and feral pigeon typically top the abundance lists of such habitats in southern England.

2.22 Black redstart was not recorded, and no breeding behaviour by birds was observed in the north stand of the Harlequins stadium.

Wildlife & Countryside Act Schedule 1 Species

2.23 No Schedule 1 bird species were recorded.

Key

Areas of value to breeding birds

N

Richmond College
Figure 2.1

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Table 2.1 Bird species and their abundance recorded during surveys of Richmond College, listed in descending order of peak abundance.

Species	Scientific Name	Total count by survey date			Peak Total
		1	2	3	
Wood Pigeon	*Columba palumbus*	29	24	14	29
Jackdaw	*Corvus monedula*	3	14		14
Starling	*Sturnus vulgaris*	2	5	14	14
Blackbird	*Turdus merula*	8	10	7	10
Ring-necked Parakeet*	*Psittacula krameri*	3	10	5	10
Feral Pigeon*	*Columba livia domestica*	3	1	9	9
Robin	*Erithacus rubecula*	3	9	4	9
Cormorant	*Phalacrocorax carbo*	8			8
Magpie	*Pica pica*	3	4	8	8
Blue Tit	*Cyanistes caeruleus*	7	1	7	7
Great Tit	*Parus Major*	1	7	2	7
Wren	*Troglodities troglodities*	6	6	4	6
Carrion Crow	*Corvus corone*	5	5		5
Coal Tit	*Periparus ater*		5		5
Dunnock	*Prunella modularis*	1	5		5
Collared Dove	*Streptopelia decaocto*	4	4		4
Goldfinch	*Carduelis carduelis*	3	4	3	4
Greenfinch	*Carduelis chloris*	2	4	4	4
Herring Gull	*Larus argentatus*	1		3	3
Moorhen	*Gallinula chloropus*	1	3		3
Whitethroat	Sylvia communis	3	1		3
Goldcrest	*Regulus regulus*		2	1	2
Great Spotted Woodpecker	*Dendrocarpus major*		1	2	2
Grey Wagtail	*Motacilla cinerea*	2			2
House Sparrow	*Paser domesticus*	2	1	2	2
Mistle Thrush	*Turdus viscivorus*		2		2
Stock Dove	*Columba oenas*	2			2
Swift	*Apus apus*	1		2	2
Blackcap	*Sylvia atricapilla*			1	1
Black-headed Gull	*Chroicocephalus ridibundus*			1	1
Chiffchaff	Phylloscopus collybita		1		1
Jay	*Garrulus glandarius*		1		1
Sparrowhawk	*Accipiter nisus*	1			1

Notes: **Red-listed** and **Amber-listed** species highlighted, *UK conservation status not assessed.

Conclusions and Recommendations

Conclusions

2.24 Fuller (1980) devised standard procedures for evaluating breeding bird communities on sites. Recording the number of species on a site can provide a simple measure of species diversity from which to confer a level of conservation importance to a site. For breeding birds, the standard qualifying levels provided by Fuller are as follows:

- National Importance, 85+ species
- Regional Importance, 70-84 species
- County Importance, 50-69 species
- Local Importance, 25- 49 species.

2.25 The species list for the whole site numbered 33, of which 29 were considered likely or potentially breeding species, placing the site within the range for Local Importance.

2.26 In spite of the presence of Red- and Amber-listed species, none of the species recorded on the site can be considered especially scarce or unexpected. They are a typical population, in terms of diversity and density, of birds to be found in southern England, in the mosaic of habitats present.

Recommendations

2.27 Any essential clearance of vegetation should adopt a precautionary approach, and be timed to avoid disturbance to breeding birds. Vegetation clearance work is permitted outside of the recognised bird breeding season, i.e. during the period August to February, or immediately following inspection and confirmation by a Suitable Qualified Ecologist that vegetation is devoid of breeding birds and their dependant young.

3 Bats

Background

3.1 The bat survey work reported here includes the results of an external building inspection survey completed of all College buildings and the north stand of the Harlequins stadium, and a bat activity survey to gain an understanding of the range of bat species using the site and to provide an indication of the presence or likely presence of a bat roost.

Survey Approach

Building Inspection

3.2 All buildings and mature trees within the red line site plan (**Figure 1.1**) were inspected externally for features that bats could use for roosting and for evidence of roosting bats from ground level using torches and close focussing binoculars as necessary on 30 June 2014, with a follow-up visual inspection of building features identified in June completed on 30 September 2014.

3.3 The inspection of buildings and trees for evidence of bats can be conducted at any time of the year according to best practice survey guidance produced by the Bat Conservation Trust (BCT)[3]. However, finding evidence of bats (e.g. their droppings) on external areas that are unprotected from rainfall may be restricted if undertaken outside of the main bat-active season and/or after periods of wet weather, as any evidence of bat presence may have been washed away. The current surveys were undertaken during the peak of the main bat active period in June and towards the end of the active period in September following a prolonged period of dry weather on each occasion such that evidence of bats would have been expected to be visible on external building surfaces on both occasions.

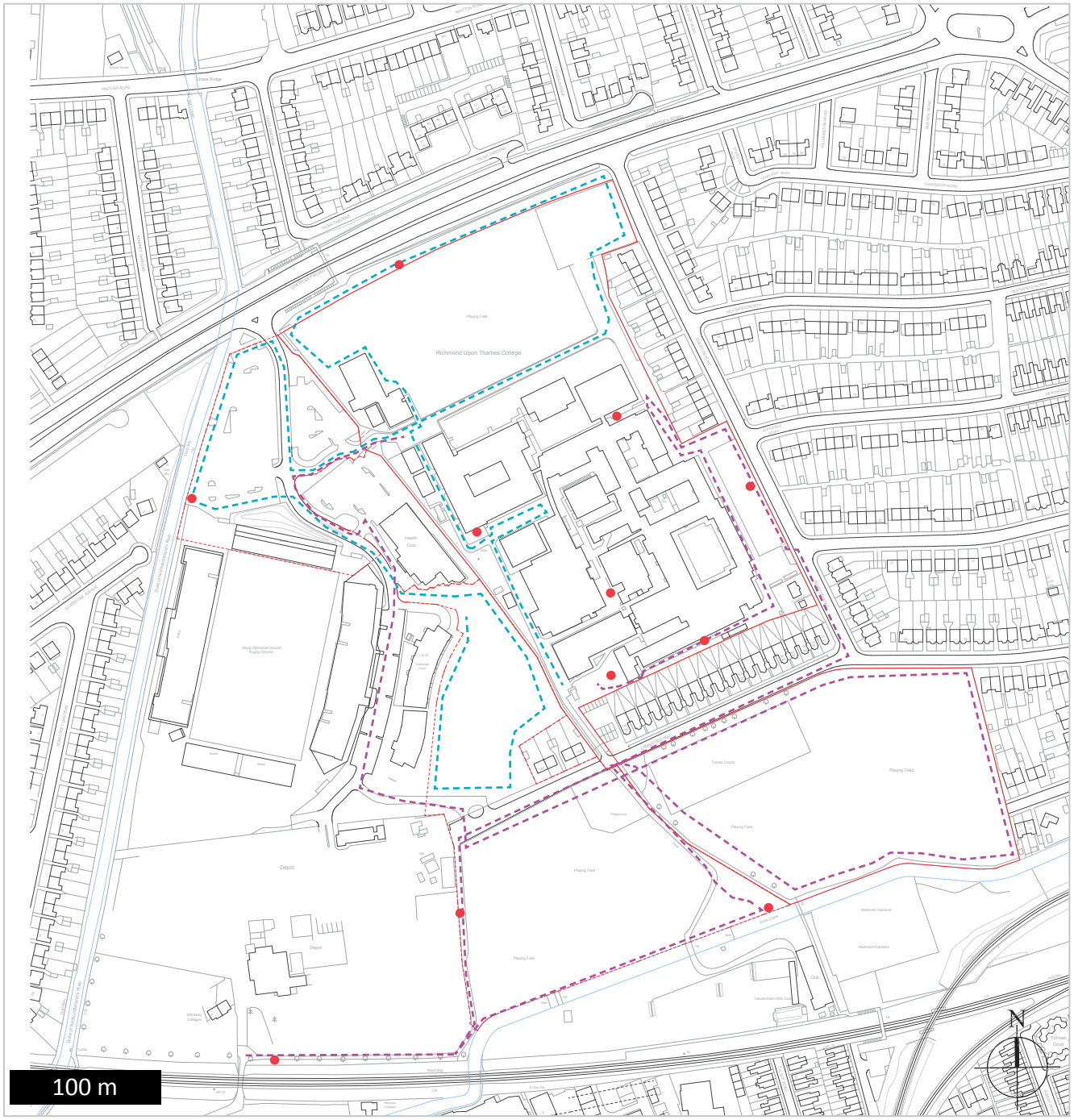
3.4 The survey was completed by Dr Duncan Painter CEnv MCIEEM (an experienced and licenced bat worker) and Dr Paul Tinsley-Marshall.

Bat Activity Survey

3.5 In line with previously cited best practice guidance, two transect routes were devised and walked concurrently by two surveyors on the 21 July and 5 August 2014 to record general levels of bat activity within the red line area and its surrounding land. The routes of each transect was reversed between the two surveys, and are shown by **Figure 3.1**.

3.6 Each transect walk commenced at 15 minutes before sunset and lasted for approximately two hours, each route was walked slowly with regular stopping points. Each surveyor was equipped with a hand-held Pettersson D230 bat detector set in frequency division mode with ear phones and an Anabat SD2 detector. In summary the Pettersson was used to hear

[3] Bat Conservation Trust (2012) *Bat Surveys – Good Practice Guidelines – 2nd Edition*. Bat Conservation Trust, London



Key

Transect route x 1 surveyor - 21 July & 5 August 2014

Transect route x 1 surveyor - 21 July & 5 August 2014

Anabat Express static bat detector location during transect surveys in July and Auguat 2014

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Figure 3.1

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bats, while the Anabat was used as a passive bat call recording device to enable subsequent bat call identification against recorded times.

3.7 All bats seen and heard were noted during the survey, with bat species being verified by comparing field notes with the bat call times recorded by and the Anabat detectors.

3.8 In addition to walking and noting bats seen and heard during the transect walks, supplementary information on bat species and their call times was recorded around the site using a total of eleven unattended Anabat Express bat detectors set up in locations that were considered to be relatively safe from third party interference and that were representative of the range of habitats present.

3.9 The playing fields and footpaths to the south of the College were all in use members of the public during both surveys prior to sun-set, and locations where detectors could be located without being observed by third parties was restricted as a result.

Bat Roost Emergence Survey

3.10 In line with BCT guidelines, a single bat roost emergence survey of all buildings within the College grounds with confirmed bat roost potential (all College buildings were confirmed as having negligible or low potential) was completed on 30 September 2014 by four surveyors each equipped with a hand-held Pettersson D230 bat detectors set in frequency division mode with ear phones. The surveyors were supplemented by eleven tripod mounted Anabat Express bat detectors and four infra-red camcorders and lamps.so that all identified potential bat roost features within the College were observed/filmed as part of the survey. The survey set-up is shown by **Figure 3.2**.

3.11 Sun-set was at 18.42 and the survey commenced 15 minutes before this time and lasted for 90 minutes past sun-set. All bats seen and heard and their directions of flight were noted by the surveyors.

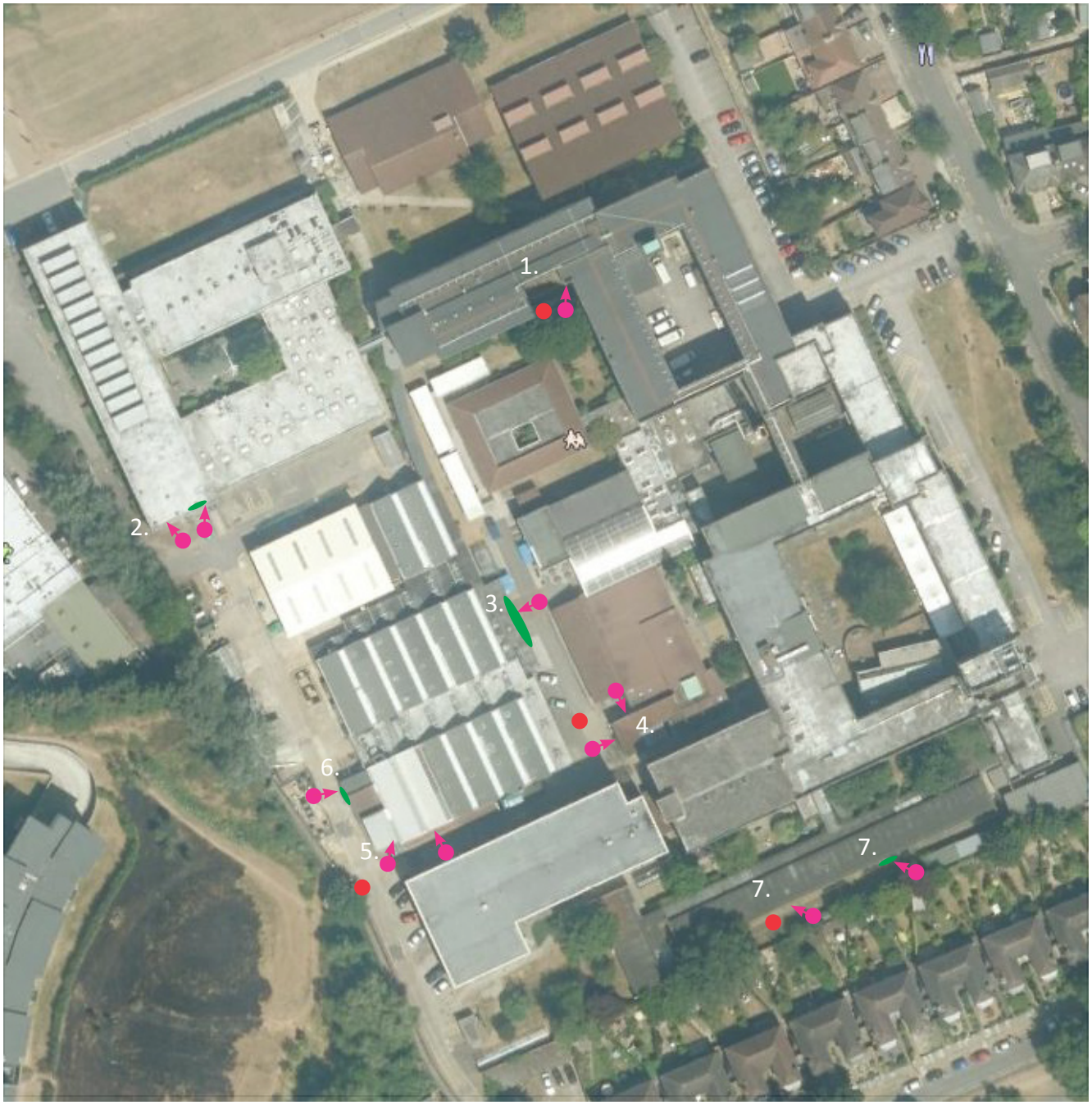
Weather Conditions

3.12 Weather conditions were suitable for bats to be active on all survey occasions:

- 21 July 2014 – 0% cloud, gentle breeze, and an air temperature of 24.7^{O}C at the start of the survey and 19.0^{O}C by the end, no rain.
- 5 August 2014 – 20% cloud, gentle breeze, and an air temperature 21.2^{O}C at the start of the survey and 19.2^{O}C by the end, no rain.
- 30 September 2014 – 5% cloud, gentle breeze, and air temperature of 20.5^{O}C at the start of the survey and 18.0^{O}C by the end, no rain.

Bat Call Analysis

3.13 All bat calls were downloaded on a PC and analysed using Analook computer software.



Notes

Bat roost emergence survey 30.9.14

N

- Surveyor (x4) equipped withy hand held Pettersson D230 and ear phones - locations 1, 4, 5, & 7)
- Tripod mounted Anabat Express electronic bat detector (x11)
- Infra-red camcorder and lamp - field of view (x4 - locations 2, 3, 6 & 7)

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Figure 3.2

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Notes

Building inspection survey completed 30 June and 30 September 2014

1. Gap between two buildings - no associated evidence of bats
2. Holes (x3) in brickwork (former ventilation ducts) - no associated evidence of bats
3. Lifted roof covering along roof edge - no associated evidence of bats
4. Gap in feather board cladding - no associated evidence of bats
5. Hole in soffit - no associated evidence of bats
6. Gaps in facia board and behind associated roof tiles - no associated evidence of bats
7. Holes (x2) in soffit - no associated evidence of bats

Richmond College
Figure 3.3

Photo 1 - gap between buildings

Photo 2 - holes in brickwork

Photo 3 - lifted roof covering

Photo 4 - gaps in feather board

Photo 5 - holes in soffit

Photo 6 - gap behind facia and tiles

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Figure 3.4 (1 of 2)

Photos taken June & Sept 2014

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