the ecology partnership

Land at Botwell Lane

Hayes

Preliminary Ecological Appraisal

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Contents

LIABILITIES:
Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on a site at a later date.

The views and opinions contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Background

1.1 PJC Ecology Ltd (PJC) was commissioned by Lidl UK to undertake a preliminary ecological appraisal on land at Botwell Lane, Hayes.

1.2 This report presents the results of PJC's surveys, which aim specifically to assess the sites potential to support a range of protected species that may be affected by the proposed development.

1.3 Section 2 of this report sets out the methodologies of PJC's surveys. In section 3 the results of the surveys are presented. Discussions and implications for development are found in section 4, including general site enhancements. Conclusions drawn from the report are presented in section 5.

Site Context and Status

1.4 The site is located in the built up area of Hayes Town. The site is located on a previously demolished swimming pool and is located adjacent to Hayes Town Green library. The site is surrounded to the north, south and west with residential development as well as light industrial units. Approximately 300m to the south west of the red line boundary lies the Grand Union Canal, with associated footpaths. The Grand Union Canal is part of the 'blue ribbon' links within the wider landscape. Approximately 250m to the west of the redline boundary lies Lake Farm Country Park. This parkland is not designated for its nature conservation interest. Other green spaces are present in the local area, however, are separated from the site by significant infrastructure. There are no direct links from the red line boundary to any off site green habitats, chains or infrastructure. The nearest designated site is 2.1km to the north, Yeading Meadows LNR.

1.5 The site location and development boundary are shown below in Figure 1. Please note the red line is shown as approimxate.

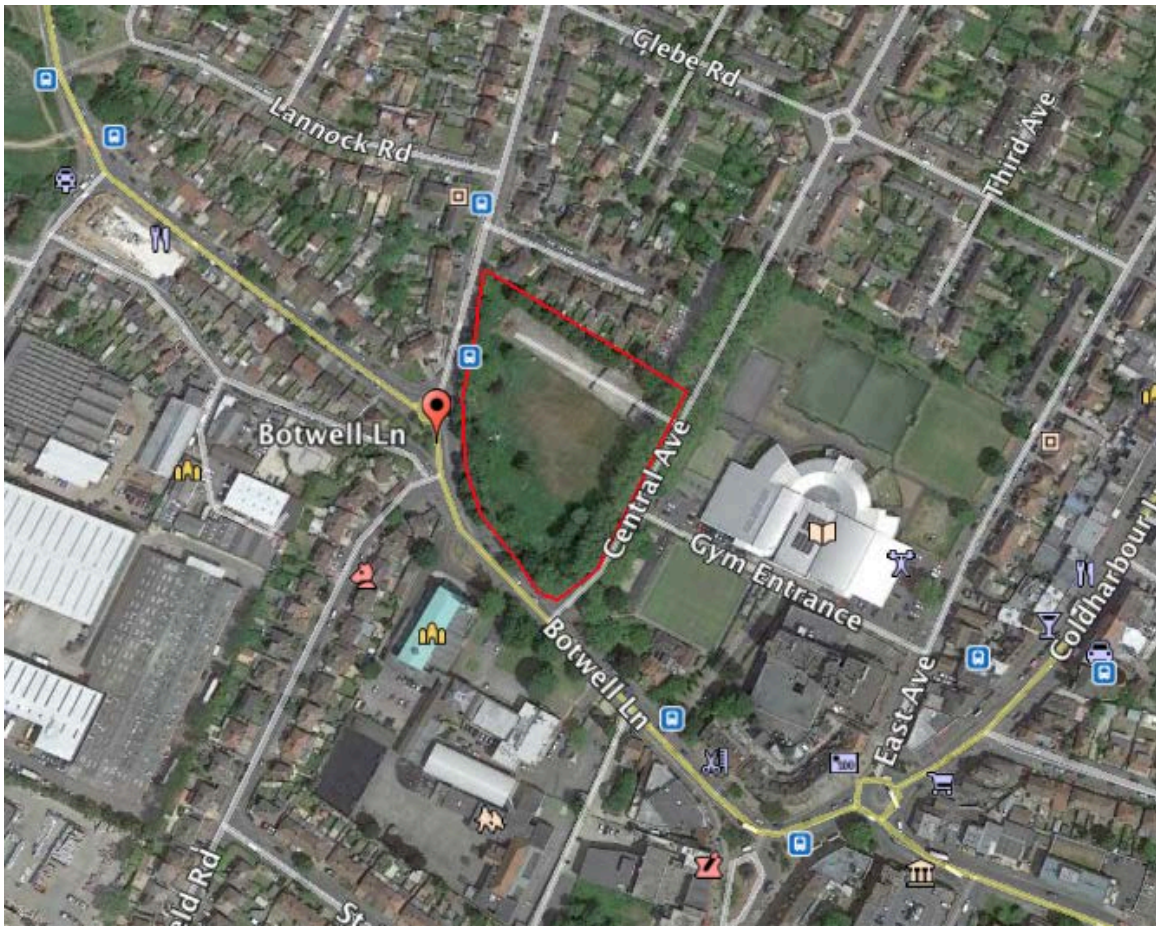


Figure 1: Approximate location of the red line boundary

Description of Proposed Development

1.6 The development plans are for the construction of a new Lidl store within the red line boundary of the site. Car parking, hardstanding and some landscaping works are also proposed. The proposed layout of the site is found in appendix 3 of this report.

Planning Policies

1.7 National and local planning policies may have an affect on the proposed development. The following paragraphs identify relevant planning policies and discuss these in the context of the site.

1.8 The United Kingdom Biodiversity Action Plan (UK BAP), published in 1994, is the national response of the Convention on Biological Diversity signed in Rio de Janeiro in 1992. The key objective of the UK BAP is avoidance of harm to 'Species of Conservation Concern'.

1.9 Under the NERC Act (2006) *"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"*. In order to comply with this 'Biodiversity Duty', planning decisions must ensure that they adequately consider the potential ecological impacts of a proposed development.

1.10 National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied. Several sections are considered to be relevant;

'In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment. Plans should allocate land with the least environmental or amenity value, where consistent with other policies in this Framework.'

And;

'Planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value. Local planning authorities may continue to consider the case for setting a locally appropriate target for the use of brownfield land.'

1.11 The site falls under the jurisdiction of the London Borough of Hillingdon. The Unitary Development Plan (UDP) was originally adopted in September 1998 as Hillingdon's statutory development plan. It is being replaced by the emerging Local Plan, including the adopted Local Plan: Part 1- Strategic Policies (formerly known as the Core Strategy). Saved policies in Hillingdon's UDP (September 2007) will gradually be replaced by policies in Hillingdon's Local Plan documents. There are some saved policies which are

considered to be pertinent to nature conservation as highlighted below.

EC5 IN DETERMINING PLANNING APPLICATIONS THE LOCAL PLANNING AUTHORITY MAY REQUIRE CERTAIN ON-SITE ECOLOGICAL FEATURES TO BE RETAINED IN NEW DEVELOPMENTS AND SEEK TO ENHANCE THE NATURE CONSERVATION AND ECOLOGICAL INTEREST OF SITES OR CREATE NEW HABITATS THROUGH THE USE OF PLANNING CONDITIONS ATTACHED TO PLANNING PERMISSIONS OR THROUGH PLANNING AGREEMENTS NEGOTIATED WITH DEVELOPERS.

EC6 WHERE EXISTING DERELICT, DAMAGED AND TEMPORARILY VACANT LAND HAS ECOLOGICAL, EDUCATIONAL, RECREATION AND SOCIAL POTENTIAL FOR THE ENJOYMENT AND PROTECTION OF NATURE OR WHERE JUSTIFIED BY THE ECOLOGICAL INTEREST OF THE LAND OR THE NEEDS OF THE LOCAL AREA, THE LOCAL PLANNING AUTHORITY WILL SEEK TO ENSURE THE LAND OR PART OF IT IS MAINTAINED TEMPORARILY OR PERMANENTLY AS WILDLIFE HABITAT.

1.12 Other policies relate to areas which have been designated for their nature conservation interest; EC1 where development will not be allowed to the detriment of SSSI or other sites of nature conservation interest; EC2 development must consider more local wildlife sites, such as those with borough importance; EC 3 where developments lie near or adjacent to any designated sites, development must take these sites into consideration; EC4 involves monitoring of sites for nature conservation interest.

1.13 The adopted local plan strategic policies do not specially address nature conservation or ecological issues. These policies focus on Green Belt land, Metropolitan Open Space, and Green Chains. The Blue Ribbon Network is also considered to be of borough importance, with several canals, including the Gran Union Canal, being located in the borough.

1.14 This report addresses the site in relation to nature conservation and wildlife and indeed to the local planning requirements as well as national planning and nature conservation legislation. The report has been produced with reference to current guidelines for

preliminary ecological appraisal (CIEEM 2013) and in accordance with BS 42020:2013 Biodiversity – Code of Practise for Planning and Development.

2.0 Methodology

Desk Top Study

2.1 A desk top study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and two internet-based aerial mapping services (www.multimap.com and maps.google.co.uk) were used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

Preliminary Ecological Appraisal

2.5 An extended preliminary ecological appraisal was undertaken on the 6th July 2015 by PJC ecologists Alexia Tamblyn MA (Oxon) MSc CEnv MCIEEM FRGS. The surveyor identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). In addition, the dominant plant species in each habitat were recorded. The potential for the site to support protected species was also assessed.

Badger Survey

2.6 A badger survey was undertaken at the site to assess if badgers were using the area and if any setts were located on the site and 30m away from the site that might constrain development. The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell et *al*., 1990) and includes searching for badger field signs such as setts, badger pathways, tracks (pawprints), dung piles with latrines, badger hairs and feeding signs such as snuffle holes.

2.7 During the survey, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity including:

- Setts: several sett types may be present within a social group territory, ranging from a single hole to numerous interconnecting tunnels. Setts can be categorised into main, annexe, subsidiary and outlier (Wilson et *al*., 1997).
- Latrine sites: badgers characteristically deposit dung in pits, which may be located along the boundaries and within the social group territory. These sites serve as means of inter- and intra-group communication.
- Paths and runs: well used routes between setts and/or foraging areas. Often used by generations of badgers.
- Snuffle holes: areas of disturbed vegetation often formed by badgers foraging for ground dwelling invertebrates such as earthworms and larvae and the underground storage organs of plants.
- Hair: often found among spoil and bedding outside entrances to setts or snagged on fences (such as barbwire) along well-used runs.
- Footprints: easily distinguishable from other large mammal species. Often found along paths and runs or in spoil outside sett entrances.

Tree Assessment for Bats

2.8 Roosts of bats in trees may be identified from the following field signs:

- Black stains beneath cracks, splits and other features where bat dropping have fallen;
- Dark marks at entrance points where bats have rubbed against the wood and left natural body oils;
- Feeding remains beneath roosts, such as insect wings;
- Chattering of bats;
- Bat droppings under access points;
- Scratch marks around a feature (cavity or split) caused by bat claws;
- Urine stains below the entrance or end of split;
- Large roosts or regularly used sites may produce an odour;
- Flies around the entrance, attracted by the smell of guano.

2.9 The trees on site were assessed for their potential to support roosting bats. The trees were assessed visually for evidence of bats as well as for features that increase the likelihood such as the following:

- Woodpecker holes, natural cracks and rot holes in trunks and branches;
- Frost cracks;
- Trunk and branch splits;
- Hollow sections of trunk and branches;
- Loose bark;
- Cavities beneath old root buttresses and coppice stools;
- Dense epicormic growth;
- Dense ivy cover.

2.10 Trees scheduled for arboricultural work should also be assessed, and may be categorised (Table 1) to relate the value of their features to recommended actions. This approach allows trees to be graded according to their potential to support bat roosts. Trees may be assessed as having the potential to support bats (from an individual to a larger roost) even if no bats have been found.

Table 1. Protocol for visual inspection of trees due to be affected by arboricultural work, to assess the value of the trees to bats

Tree category and description	**Stage 1 Initial survey requirements**	**Stage 2 Further measures to inform proposed mitigation**	**Stage 3 Likely mitigation**
Known or confirmed roost	Follow SNCO guidance and these guidelines wherever possible, to establish the extent to which bats use the site. This is particularly important for roosts of high risk species and/or roosts of district or higher importance and above		The tree can be felled only under EPS license following the installation of equivalent habitats as a replacement.
Category 1* Trees with multiple, highly suitable features capable of supporting larger roosts	Tree identified on a map and on the ground. Further assessment to provide a best expert judgment on the likely use of the roost, numbers and	Avoid disturbance to trees, where possible. Further dusk and pre-dawn survey to establish more accurately the presence,	Felling would be undertaken taking reasonable avoidance measures such as 'soft felling' to minimise the risk

	species of bat, by analysis of droppings or other field evidence. ***A consultant ecologist is required***	species, numbers of bats present and the type of roost, and to inform the requirements for mitigation if felling is required.	of harm to individual bats.
Category 1 Trees with definite bat potential, supporting fewer suitable features that category 1* trees or with potential for use by single bats	Tree identified on a map and on the ground. Further assessed to provide a best expert judgment on the potential use of suitable cavities, based on the habitat preferences of bats. ***A consultant ecologist required***	Avoid disturbance to trees, where possible. More detailed, off the ground visual assessment. Further dusk and pre-dawn survey to establish the presence of bats, and if present, the species and numbers of bats and type of roost, to inform the requirements for mitigation if felling is required.	Trees with confirmed roosts following further survey are upgraded to Category 1* and felled under license as above. Trees with no confirmed roosts may be downgraded to Category 2 dependent on survey findings
Category 2 Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats.	None. ***A consultant ecologist is unlikely to be required***	Avoid disturbance to trees, where possible. No further surveys.	Trees may be felled taking reasonable avoidance measures. Stop works and seek advice in the event bats are found, in order to comply with relevant legislation.
Category 3 Trees with no potential to support bats	None. ***A consultant ecologist is not required unless new evidence is found***	None.	No mitigation for bats required.

Habitat Suitability for Reptiles

2.11 Habitat surveys were carried out to assess the potential of the site to hold populations of reptile species. This involved looking for the presence of factors that would increase the suitability of the site for reptiles such as:

- Scrub and grassland (long sward) mosaic across the site;
- Features that can be potential hibernation sites for common reptiles such as log piles;
- Grass tussocks within the grassland that can act as shelter and burrowing sites;
- Water bodies or damp places on site (grass snakes);
- Compost heaps or decaying vegetation (slow worms);
- Features that can act as refugia on the ground such as disused roofing felt.

Limitations

2.12 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.

2.13 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

3.1 The site itself is not designated for its nature conservation value and there are no designated sites within 2km of the red line boundary. Due to the extent of the development and the location of the development in a highly built up area and limited connectivity, it is considered that the redevelopment of this site will only impact upon habitats within the red line boundary.

Preliminary Ecological Appraisal

3.2 The site is comprised of predominantly several habitat types; semi improved grassland habitats, which was found across the majoirty of the site, hardstanding areas and scrub habitats with scattered trees.

3.3 The grassland across the site was considered to be semi improved. The dominant species in the grassland include; Yorkshire fog (*Holcus lanatus*), perennial rye grass (*Lolium perenne*), wall barley (*Hordeum murinum*), couch grass (*Elytrigia repen*), false oat grass (*Arrhenatherum elatius*), rough meadow grass (*Poa trivialis*), common bent (*Agrostis capillaris*) and creeping bent (*Agrostis stolonifera*). The herbs were considered to be occassioanl throughout the grassland, however, species present included; ribwort plantain (*Plantago lanceolata*), red dead nettle (*Lamium purpureum*), white clover (*Trifolium repens*), sorrell (*Rumex acetosa*), ragwort (*Senecio jacobaea*), creeping thistle (*Cirsium arvense*), willowherb (*Chamerion angustifolium*), bind weed (*Convolvulus arvensis*), creeping buttercup (*Ranunculus repens*) and creeping cinquefoil (*Potentilla reptans*).

3.4 Pockets of scrub were largley associated with the edges of the site. Species present included bramble (*Rubus fruticosus*), common nettle (*Urtica dioica*), cleavers (*Galium aparine*), thistles and ivy (*Hedera helix)* However, a thick patch of nettles and thistles were present in the southern portion of the site.

3.5 The site supported trees around the edges of the site. The northern boundary (to the rear of Holmberry Gardens) was a row of cypres trees with elm (*Ulmus agg*) species, with limited understorey of brambles, common nettle, elder (*Sambucus nigra*), willowherb and common mallow (*Malva sylvestris*).

3.6 Trees along Church Road included sycamore (*Acer pseudoplatanus*), lime (*Tilia sp*), maple species with some shrubby areas of viburnum species and elder, hawthorn (*Crataegus monogyna*) and prunus species. The trees along Botwell Road and Central Avenue were largley outside the red line boundary. Mature London Plane were located on Central Avenue, with species within the red line boundary including lime, silver birch (*Betula*

pendula), cherry species (*Prunus sp*), horse chestnut (*Aesculus hippocastanum*), maple species (*Acer* sp) and ash (*Fraxinus excelsior*).

Tree Assessment

3.7 None of the trees on site were considered to be veteran, and whilst some were of some age, there were no indiviudal trees which were considered to support complex growth forms, dense ivy covering or supporting additional features which are commonly associated with roosting bats. Furthermore, the trees present are generally isolated to areas of suitable bat foraging habitat and the trees present on site whilst from some cover, are well lit from street lamps and subject to relatively high noise levels.

Habitat Suitability for Protected Species

Badgers

3.8 No badger setts were identified within the site's boundaries. No latrines were noted along the site's edges and no snuffle holes were found. Several mammal paths were noted within the grassland, but these were not identified as being produced by badgers.

Reptiles

3.9 The semi-improved grassland and ruderal species do support a high sward height and tussocks, which is often associated with reptile species.

Breeding Birds

3.10 All mature trees and shrubs within the site boundary have potential to support nesting birds. There are a significant number of trees on site suitable for nesting birds. Several common species were seen and heard at the time of the survey. It is recommended that any clearance works on site be carried out outside of the breeding season, which is March-September inclusive.

Other Species

3.11 The site does not support suitable habitat for dormice, water voles or otters. There are no water bodies on site or in the immediate area and therefore it is considered unlikely that the site would be in use by common amphibians such as great crested newts.

4.0 Discussion

Habitats

4.1 The habitats on site are considered to be common and widespread with the site supporting areas of hardstanding and with large areas covered by semi improved grassland which has naturally developed over the years. The edges of the site support scattered trees with some patches of scrub. The habitats present on site are considered to be of site level interest only.

4.2 The location and nature of the site, in terms of extent and isolation, reduces the opportunities for the site to become naturally colonised by a range of protected species. However, it is likely to provide some level of interest for common birds and invertebrates within the local area and may provide a stepping stone for such species in an otherwise urban landscape.

4.3 Mature trees are present around the edges of the site. The London Planes which are located outside the red line boundary provide good amenity value and provide some cover and opportunities for a range of bird species. These should be considered as part of the development and protected during site works. The mature trees within the red line boundary also provide some maturity to the landscape and provide some site level interest for wildlife.

4.4 The grassland on site is considered to be semi improved, although of moderate species richness, across a large portion of the site. The loss of this habitat is not considered to be significant as this habitat is common and widespread.

Protected Species

4.5 The site does not support suitable habitats for a range of species such as dormice, water voles and otters. Furthermore, the isolation of the site and how this site is set within the wider landsacpe further reduces it's potential to support protected species. Whilst the site has been left un managed for a considerable length of time, it is unlikely that species, for

example reptile species, would be able to naturally colonise such as there are no connective linakges or green corridors to other suitable habitats.

4.6 Whilst the grassland in itself was considered to be suitable for a range of species such as common reptiles or GCNs in their terrestrial form, the isolation from other habitats, including ponds or other waterbodies, and other unmamaged grassland/scrub areas, minimalises the potential to support such species. As such it is considered that no further surveys for such species are required.

4.7 No evideence of the site being used by badgers was found. No badger setts were identified within the red line boundary of the site and no snuffle holes or latrines were noted in the site. Numerous mammal paths were seen, however, no direct evidence of badgers was found. Whilst badgers are often associated with the urban landscape it is considered unlikely that badgers would be present within the local area due to the limited local foraging opportunities present. As such it is considered that no further surveys are required.

4.8 The trees on site did not support features which are often associated with bats. None of the trees were veteran and none were considered to support complex growth forms. Furthermore, the trees themselves are located on busy urban roads with high light levels. Whilst some species, such as pipistrelles, can more adaptable to the urban environment, it is considered that roosting opportunities on site is limited and the site is not considered to be constrained by roosting bats. No further bat surveys are recommended.

4.9 The site supports significant number of trees which are suitable for nesting birds. Furthermore, the scrub and understorey also have potential for nesting birds.. It is recommended that any clearance works on site be carried out outside of the breeding season, which is March-September inclusive.

General Site Enhancements

4.10 It is recommended that as many of the mature trees are retained on the edges of the site where possible. It is recommended that some new trees are planted within the site. These should be species such as rowan, cherry, alder, hornbeam and hazel.

4.11 Other additional enhancements include the provision of invertebrate boxes and bird boxes which can be affixed to buildings, walls or fence lines.

4.12 Planters for public open spaces should include species which provide nectar options, but also provide good amenity value such as: lavender, jasmine, chamomile, fennel, oregano, evening primrose, thyme, mint, heather, and various ornamental grasses.

5.0 Conclusions

5.1 The site is not designated for its nature conservation value nor does it lie adjacent to any designated sites or indeed sites of local conservation interest.

5.2 The site supports habitats which are common and widespread and considered to be of site value only. The mature trees provide some site level interest and as such it is recommended that as many of the mature trees should be retained where possible within the scheme.

5.3 The scrub and grassland provides some opportunities for local wildlife such as common birds and invertebrate species, however, this habitat is not considered likely to support common reptile or amphibian species.

5.4 The site was not considered suitable for a range of species such as water vole, otter and dormice, due to the nature of the site and the location. No evidence of badgers was found on site.

5.5 None of the trees on site were considered to have high potential to support roosting bats and as such no trees were categorised as being category 1 or 2 trees and no further survey work is recommended.

5.6 The site has the potential to support common nesting birds and as such clearance should be undertaken in as sensitive way and outside bird nesting season.

5.7 It is recommended that where possible mature trees are retained within the scheme. Additional recommendations include the use of bird boxes and invertebrate boxes, and the use of species which provide nectar and/or berries within the planting scheme.

6.0 References

Hundt L (2012). Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust. London

Francis Rose (1981) *The Wildflower Key – British Isles-N.W Europe*. Penguin Group, London.

Neal, E. and Cheeseman, C. (1996) *Badgers*. T & A D Poyser Ltd. London.

Magic Interactive Map: www.magic.gov.uk

Multimap: www.multimap.com

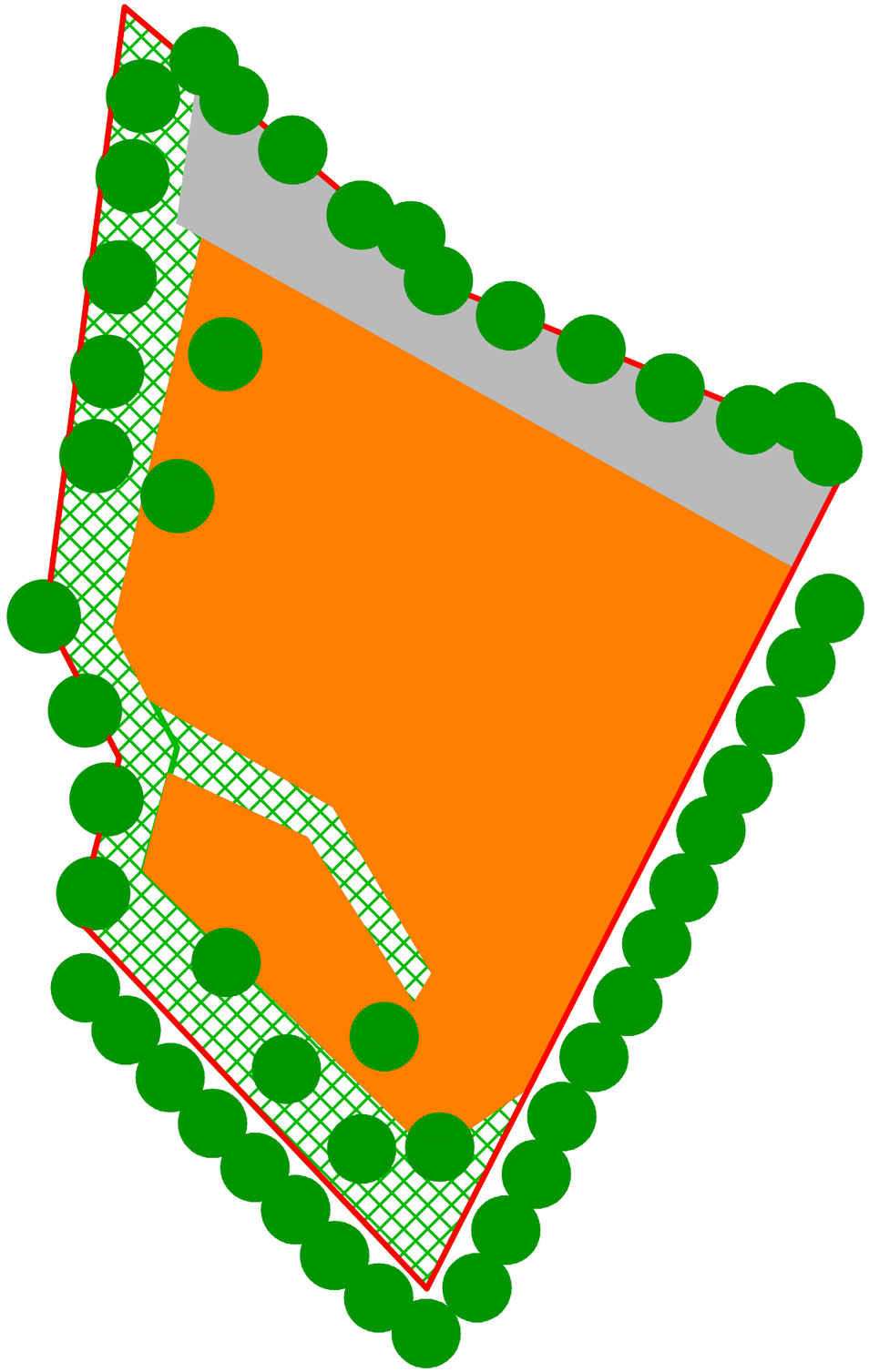
Appendix 1: Photo Document

Photo 1: Hardstanding area	
Photo 2: Tree line to the rear of Holmberry Gardens	
Photo 3: Scattered trees on the western edge of the site	

Photo 4: Grassland habitat across the site and the eastern London plane tree line	
Photo 5: the eastern scrub area	
Photo 6: the western edge	

Photo 7: London planes located outside the boundary of the site.	

Appendix 2: Habitat Map



Notes

- Semi-improved grassland
- Scrub
- Scattered trees
- Hardstanding
- Survey Boundary

Site: Botwell Lane

Client: Lidl

Surveyor: AT

Drawing Date: 8th July 2015

Drawing Title: Phase 1 Habitat Map

Appendix 3: Site Layout

SCHEDULE OF ACCOMMODATION

6 AISLE TYPE 17 LOF STORE

Lidl site area	0.971 ha	
Council site area	0.032 ha	
GEA (ground)	2,639 sq m	
GIA (ground)	2,554 sq m	
Sales	1,687 sq m	
Circulation	72.0	
Warehouse	450.5	
Bakery prep	83.5	
Bakery warehouse	50.6	
Additional chillers	77.8	
Office	12.4	
Utilities	14.4	
Customer wcs etc	32.8	
Store	6.8	
Internal walls	62.2	

PARKING

Standard		92	
Disabled		14	
Brown Badge	BR	7	
EVCP Active	CP	14	
EVCP Passive	CP	14	
Parent & child		5	
TOTAL		146	spaces
Motor cycles	M/C	7	
Bicycles		16	long stay
Bicycles		26	short stay

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Project	Date	Scale	
PROPOSED LIDL, CENTRAL AVENUE, HAYES	MAR 2015	1:500 @ A3	
Drawing: PROPOSED SITE LAYOUT LOF STORE	3176	402	P

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