



Kings Meadow View

Ecological Assessment Report

On behalf of **abrdn**

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Executive Summary

Stantec was commissioned by abrdn to undertake an ecological assessment of the proposed Kings Meadow View development located within Reading, Berkshire on the Forbury Retail Park (the 'Site') to inform an outline planning application for a mixed-use residential led development, including the provision of Class E floorspace.

The ecological baseline against which any potential impacts of proposals are to be assessed against has been informed by an ecological desk study and an extended Phase 1 habitat survey. The key findings of the ecological assessment identified:

- There are no internationally statutory designated areas within 10 km of the Site or Nationally statutory designated areas within 2 km.
- There are eight non-statutory designated sites Local Wildlife Sites (LWS) and two proposed (LWS) within 2 km of the Site boundary. The closest LWS to the Site is The Coal, Kennetmouth and Kings Meadow LWS located approximately 400m north-east of the Site.
- The rail line directly north of the Site is designated as an 'area of identified biodiversity interest' within Reading Borough Council's Local Plan.
- The Site is dominated by habitats of low intrinsic ecological value, predominantly comprising buildings and hardstanding with associated areas of soft landscaping.
- The Site has the potential to support protected species including bats and breeding birds although suitable habitat is limited and largely suboptimal.

Measures to avoid loss of habitats as well as provide enhancements for biodiversity have been incorporated within the landscape design for the Site. In addition, measures to protect breeding birds during construction works, as well as measures to protect retained habitats and the wider environment are outlined within this document. These measures should be detailed within a Construction Environmental Management Plan (CEMP) which will be adhered to during construction works, and will likely be added as a condition the any planning permission granted at the site.

Given the limited ecological value of the Site, the measures which are to be implemented to protect breeding birds and the provision for biodiversity within the landscape design, it is considered that the proposals are compliant with relevant legislation and planning policy at all levels.

This executive summary contains an overview of the key findings. However, no reliance should be placed on any part of the executive summary until the entire report has been read.

1 Introduction

1.1 Overview

- 1.1.1 Stantec was commissioned by abrdn (the 'Applicant') to undertake an ecological assessment of the proposed Kings Meadow View development located within Reading, Berkshire at Forbury Retail Park (hereafter referred to as 'the Site') to inform an outline planning application for a mixed-use, residential led development and the provision of Class E floorspace.

1.2 Site Location and Description

- 1.2.1 The Site is located at approximate Ordnance Survey grid reference SU721737 and covers approximately 2.65 ha comprising buildings and hardstanding associated with the existing Forbury Retail Park. Running alongside the northern boundary is the Great Western Railway, to the south and to the west of the Site is Forbury Road (A329), and to the east is Kenavon Drive. Beyond these areas are buildings and areas of hardstanding associated with the wider urban area of Reading.
- 1.2.2 A Site location plan is provided at **Figure 1**, which also shows the extent of the Site and Survey Area.

1.3 Proposed Development

- 1.3.1 The Proposed Development is residential-led mixed use scheme of up to 820 units and up to 5,500 sqm of Class E uses with vehicle access and landscaping. The units will comprise of 1 bed, 2 bed and 3 bed configurations, with up to 200 parking spaces located in the basement, 53 above ground car parking spaces for the Class E provision and secure cycle stores. The proposed general arrangement of the Site is provided as **Appendix A**.

1.4 Report Scope

- 1.4.1 This report sets out the ecological baseline which has been identified within the Site as well as identifying pertinent ecological features within proximity of the Site (i.e within the ecological zone of influence). Following an evaluation of these ecological features against legislative and planning policy requirements an assessment of the impacts associated with the construction and operation of the Proposed Development is presented. Where impacts are identified, appropriate avoidance and mitigation measures are detailed alongside measures to provide ecological enhancements in line with applicable ecological legislation and planning policy.

2 Methodology

2.1 Overview

- 2.1.1 This section sets out the methodology used for the ecological impact assessment which relates to a desk-based study; an 'extended' Phase 1 Habitat Survey, and the evaluation and impact assessment approach. It also describes any survey constraints or limitations.

2.2 Survey Area

- 2.2.1 The survey area comprised the entire Site boundary, as shown in **Figure 1**

2.3 Desk Study

- 2.3.1 A desk-based review was conducted in September 2021 using open-access resources to identify existing ecological data relevant to the Site and its surrounds. This review considered:
- Information relating to statutory designated areas for nature conservation pertaining to a 10 km-radius search buffer of the Site centre for internationally designated areas and 2 km for nationally designated areas, as held on the Multi-Agency Geographic Information for the Countryside (MAGIC) website;
 - Habitats listed in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006), and ancient woodland parcels within a 1 km of the Site as held by MAGIC;
 - Relevant areas included within local planning policies.
 - Records held on MAGIC for European Protected Species (EPS) licences granted within 2 km of the Site;
 - Ground-level and aerial imagery of the Site and its surrounds.
- 2.3.2 Data received from the Thames Valley Environmental Records Centre in relation to non-statutory designated areas and protected or notable species records from within a 2 km radius of the Site was also reviewed during the desk-based study.
- 2.3.3 An update desk study was completed in February 2023 which reviewed only open-access resources including the MAGIC website.

2.4 Extended Phase 1 Habitat Survey

- 2.4.1 An extended Phase 1 Habitat Survey) was completed on the 5th October 2021. The habitats within the Site were classified and mapped following standard methodology (JNCC, 2016). This uses a system of codes to describe different habitat types based on the dominant vegetation present. The survey was extended to consider the potential of the habitats present to support protected or notable species. The weather conditions during the survey were dry with partially cloudy skies (5/8 cloud cover) and a moderate/fresh breeze (Beaufort Scale F4-F5). Air temperatures ranged between 12°C-14°C.

2.5 Personnel

- 2.5.1 The survey was undertaken by a suitably qualified and experienced ecologist who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). The surveyor has worked as a professional ecologist for more than 16 years and has extensive

experience of undertaking habitat surveys and protected species surveys in a range of habitats across the UK.

2.6 Evaluation and Impact Assessment Approach

2.6.1 The importance of ecological features affected by the Proposed Development was evaluated using Ecological Impact Assessment (EclA) guidance (CIEEM, 2018). This guidance recommends that valuation of ecological features associated with a site is made with reference to a geographical framework, i.e. a feature may be of importance within the following context:

- International and European;
- National (England);
- Regional (the South-east);
- County (Berkshire); and
- Local (Reading).

2.7 Constraints / Limitations

2.7.1 Data supplied by records centres provides useful baseline information on the species that have been recorded within a local area and details of sites with nature conservation designations. This data often includes surveys undertaken by third parties on an 'ad hoc' basis so may be incomplete. Absence of species records may not therefore indicate absence of that species from an area. For this reason, an ecological assessment is always informed by both desk study and information gathered during the field survey.

2.7.2 The field survey was completed just outside of the optimal period for habitat and vegetation surveys (typically between April and September). However, given the Site mostly comprises building and areas of hardstanding, as well as being located within a predominantly urban area, it was possible to fully characterise the habitats present. It was also possible to undertake a robust assessment of the potential for protected and notable species to occur. As such there are not considered to be any constraints or limitations associated with this aspect of the assessment.

2.7.3 The field survey was also undertaken over 12 months prior to the submission of the application. However, owing to the composition of the Site (buildings and hardstanding) it is not considered that the ecological baseline presented within this report will have significantly changed to an extent which affects the overall recommendations and conclusions within this report.

2.8 Report Qualification

2.8.1 The survey and evaluation were undertaken in accordance with best practice methodology current at the time of commissioning. Site circumstances, scientific knowledge or methodological requirements can change during the course of a project, and these external factors may impact on the scope of subsequent work requirements. The information contained in this report has been prepared and provided in accordance with CIEEM's Code of Professional Conduct. The opinions expressed are true and professionally bona fide.

2.8.2 An ecological survey has an expected validity period owing to the tendency of natural environments to change over time. This validity period varies from receptor to receptor and is also dependent on the degree of change in a site's management and overall landscape ecology. If the potential for change is considered relevant to the Site, this is highlighted in the

appropriate section. Regardless, if Site development does not commence within 24 months of the date of this report, the findings of this report should be reviewed, and a re-survey and re-assessment of the Site should be undertaken by a suitably qualified ecologist.

- 2.8.3 This report does not purport to provide detailed, specialist legal advice. Where legislation is referenced, the reader should consult the original legal text, and/or the advice of a qualified environmental lawyer.

3 Results and Evaluation

3.1 Overview

- 3.1.1 This section sets out the findings of the desk study and survey work and provides an evaluation of the identified ecological features in the context of the CIEEM geographical framework. This supports determination (scoping) of those feature(s) requiring further consideration in terms of impact assessment, and/or determination of those feature(s) where mitigation, compensation or enhancement measures are required to enable legislation and policy compliance if planning permission is required.

3.2 Designated Areas

Statutory Designated Areas

- 3.2.1 There are no European statutory designated sites for nature conservation within 10 km or nationally designated sites for nature conservation within 2 km of the Site. The Site does not sit within a designated area Impact Risk Zone as defined on Defra's MAGIC website.

Non-statutory Designated Areas

- 3.2.2 Eight non-statutory designated sites and two proposed non-statutory designated sites are present within 2 km of the Site boundary, all of which are Local Wildlife Sites (LWS). The closest LWS to the Site is The Coal, Kennetmouth and Kings Meadow LWS located approximately 400m north-east of the Site and which comprise areas of grassland and woodland. It is separated from the Site by buildings and hardstanding, although the Great Western Rail line adjacent to the Site is likely to afford some connectivity to commuting terrestrial species. There is no obvious hydrological connectivity between the Site and the LWS.
- 3.2.3 The remaining LWS are located over 1 km from the Site, with no obvious direct terrestrial or hydrological connectivity. Details of the LWS present within 2 km of the Site are presented in Table 2 below.

Table 1: Non-statutory designated areas

Name, Designation and Grid Reference	Distance from Site	Summary of Key Features
The Coal, Kennetmouth and Kings Meadow LWS (SU727740)	400 m north-east	This area is a combination of two areas. The Coal comprises a central and riverside woodland area. Kennetmouth is a length of towpath, with alder, willow and wetland species. Kings Meadow, a recreational area, supports broadleaved woodland, scrub and tall herb and rough grassland.
Dingley Dell LWS (SU727749)	1.15 km north-east	Proposed LWS extension. Dingley Dell is a large site incorporating woodland and semi-improved grassland, with a small area of scrub with mature willow pollards and species-poor ground cover.
Holy Brook LWS (SU703718)	1.2 km south-west	The Holy Brook is a stream that carries water from and emptying back into the River Kennet, a chalk river. Alder and willows line the banks and a variety of

Name, Designation and Grid Reference	Distance from Site	Summary of Key Features
		wetland species are found along the banks. Notable invertebrates and water vole have been recorded in the central and western sections of the brook.
River Kennet / Kennet & Avon Canal LWS (SU685709 – SU713719)	1.2 km south-west	The River Kennet contains sections of high-quality chalk river; its an important wildlife corridor running into Reading, providing valuable riverine habitat. Supports water vole and a rich invertebrate assemblage.
Henley Road Gravel Pit LWS (SU705772)	1.25 km north-east	Proposed LWS extension. The area comprises a large old gravel pit and is one of the best areas for wildfowl in South Oxfordshire.
Cow Lane Depot LWS (SU704738)	1.37 km west	A small isolated, triangular area bounded by a railway track, comprising willow scrub with mature trees, open standing water with a swamp, ruderal and tall herb grassland. Provides a wildlife corridor in an urban landscape.
The Warren Woodlands Complex LWS (SU697752)	1.57 km north-west	Comprises six areas situated on the chalk scarp of The Warren. The areas support chalk pits, scrub, semi-natural woodland and wet woodland.
Fobney and Kennet Valley Meadows LWS (SU701714)	1.8 km south-west	A large area of permanent pasture with some wet grassland and patches of swamp vegetation. The area supports a series of ditches with tall wetland and aquatic species and a small area of woodland. The meadows flood regularly in winter providing an attractive area for overwintering wildfowl.
Whitely Park Farm/St Patrick's Hall LWS (SU726716)	1.9 km south	The area, squeezed between student accommodation, a housing estate and public open space, supports semi-natural woodland and ponds. Important for its bird fauna supporting species lists on both the red and amber lists as 'birds of conservation concern'.
Whiteknights Park LWS (SU737718)	1.9 km south-east	The area comprises a mosaic of landscaped trees with mown grassland, a large shaded, eutrophic lake, mixed secondary woodland, several stands of introduced shrubs and trees and a couple of areas managed as meadow.

- 3.2.1 The rail line directly north of the Site is designated as an 'area of identified biodiversity interest' as shown on the Reading Borough Council (RBC) Local Plan Proposal Map (Reading Borough Council, 2019). This designation includes open green spaces and wildlife corridors which contribute to Reading's Green Network.

3.3 Off-site Habitats

- 3.3.1 A number of Habitats of Principal Importance (HPI) were identified within the 1 km search radius. These are listed below:
- deciduous and broadleaved woodland lie to the north of the railway track, the closest area is 200 m to the north of the Site;
 - semi-improved grassland associated with The Coal, Kennetmouth and Kings Meadow LWS, and;
 - open mosaic habitats on previously developed land lie 750 m to the north-east.
- 3.3.2 There is no obvious direct terrestrial or hydrological connectivity between the Site and these areas, other than the connectivity provided by the adjacent rail line in its capacity as a potential wildlife corridor.

3.4 On-Site habitats

- 3.4.1 The habitats have been mapped using extended Phase 1 habitats classification, shown in **Figure 1**, and are summarised below with further details, species names and associated photographs provided in **Appendix B and C**.
- 3.4.2 The Site is comprised predominantly of hardstanding buildings with small areas of amenity grass, scattered trees and ornamental planting. Scattered tree species included silver birch, field maple, London plane and ash with areas of ornamental planting dominated by small-leaved cotoneaster and lavender. Areas of dense scrub are present beneath the scattered trees along the northern boundary, and also beneath the trees along the southern boundary to the west. Dense scrub is also present along the eastern and western boundary with bramble, dogwood, black-thorn and non-native ornamental species such as laurel, scarlet firethorn and buddleia present.
- 3.4.3 All habitats recorded are considered to be of less than local value.

3.5 Protected and Notable Species

- 3.5.1 The results of the desk study and field surveys undertaken in relation to protected and notable species are presented below. Relevant legislation pertaining to each species is provided in **Appendix D**.

Bats

- 3.5.2 The Thames Valley Environmental Records Centre data search returned 372 records of bats within 2 km of the site within the last 10 years; species included common pipistrelle *Pipistrellus pipistrelles*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula*, Leisler's bat *Nyctalus leisleri*, Nathusius' pipistrelle *Pipistrellus nathusii*, Daubenton's *Myotis daubentonii*, Serotine *Eptesicus serotinus* and barbastelle *Barbastella barbastellus*, with the closest (common pipistrelle and daubenton bat) record 100 m north of the Site associated with Kings Meadow Park.
- 3.5.3 The buildings within the Site were considered to have negligible potential to support roosting bats as they supported no suitable features or access points into roof voids or external fixings. In addition, none of the trees on Site were considered to have potential to support roosting bats as they were young or semi-mature trees with no suitable rot holes or other cavities.

- 3.5.4 The boundary habitats, in particular the northern and eastern boundary habitats and their proximity to the railway corridor, may provide suitable commuting and foraging opportunities for bats, however the remaining Site area provides limited habitat for foraging bats.
- 3.5.5 Taking both the roosting and foraging opportunities for bats into account it is considered that the Site likely supports low numbers of common and widespread bats species of less than Local value.

Badger

- 3.5.6 The data search returned 12 records of badgers *Meles meles* within 2km of the Site within the past 10 years. The field survey identified the Site may provide some limited foraging habitat badgers, limited to the areas of landscape planting and bats may commute across the Site from areas of more suitable habitat such as the adjacent rail line. However, no evidence of badgers (setts, latrines, foraging marks) were recorded during the field survey and badgers are considered likely to be absent from the Site.

Water Voles and Otters

- 3.5.7 There are no water courses within or directly adjacent to the Site and therefore otters *Lutra lutra* and water voles *Arvicola amphibius* are considered to be absent.

Birds

- 3.5.8 The data search returned records of 76 bird species within 2 km of the Site within the last 10 years, including 15 species listed on Annex 1 of the Birds Directive, and an additional 13 species listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended), including black redstart *Phoenicurus ochruros* and peregrine falcon *Falco peregrinus*.
- 3.5.9 The scattered trees, dense scrub, introduced shrubs and the buildings all have the potential to support breeding birds.
- 3.5.10 With regards the records for black redstart and peregrine falcon, these relate to breeding records at two consistent sites located approximately 500 m west (black redstart) and 600 m east (peregrine falcon) from the Site, with the latest record for black redstart dating from 2015 and peregrine falcon, 2017. The Site does potentially provide some suitable nesting habitat for black redstart, although this is relatively limited, with this species preferring to nest within relatively tall, complex buildings, unlike the building present within the Site. With regards peregrine falcons, the buildings on-site are relatively low (2-3 storeys high) and unlikely to be used for nesting, with this species preferring considerably taller buildings to nest on.
- 3.5.11 Based on our current understanding of the Site it is considered that it supports a breeding bird assemblage of less than local value. However, should nesting black restarts or peregrine be recorded than these species would be considered to be of at least county value.

Reptiles

- 3.5.12 The data search returned 54 records of slow worm *Anguis fragilis* and three records of grass snake *Natrix helvetica* within 2 km of the Site, between 2013 and 2018.
- 3.5.13 The Site does not support suitable reptile habitat, being predominantly hardstanding and buildings. The adjacent railway habitat to the north, and north-east may provide suitable reptile habitat, however this habitat does not extend into the Site. Reptiles are therefore considered to be likely absent from the Site.

Great Crested Newt and other amphibians

- 3.5.1 The desk study returned one record of a common toad *Bufo bufo* and one record for great crested newt (GCN) *Triturus cristatus*. The location of the GCN records is not provided, however no ponds are apparent on OS maps within 500 m of the Site. In addition, no records of a European Protected Species licence being granted within 2 km were found on Defra's MAGIC Map.
- 3.5.2 The field survey identified the majority of the Site as having limited suitability to support GCN or other amphibian species. Whilst the boundary habitats have low suitability to support amphibians in their terrestrial phase, with connectivity provided by the railway line, the lack of ponds within 500 m would mean it would be very unlikely they would be present. GCN and other amphibians such as common toad are therefore considered to be likely absent from the Site.

Invertebrates

- 3.5.3 The data search returned 166 records of stag beetle *Lucanus cervus*, and four species of moths including Buff Ermine *Spilosoma lutea* and Cinnabar *Tyria jacobaeae* and one record of the Depressed River Mussel *Pseudanodonta complanata* within 2 km of the Site within the past 10 years. However, on the whole, non-of the habitats or plant species present within the Site are suitable to support these species, and where such plant species or habitat are present, they are unlikely to support a significant population of these species.
- 3.5.4 From the field survey it was also concluded that there is limited suitable habitat within the Site to support a significant assemblage of invertebrates.
- 3.5.5 On the basis of the above it considered that any invertebrate species or assemblage of invertebrates present within the Site are likely to be of less than local value.

Non-Native Invasive Species

- 3.5.6 The Site has potential to support invasive and non-native plant species; the only non-native species recorded during the field survey was buddleia within the Site boundary. The data search also returned records of Japanese knotweed *Fallopia japonica* and Himalayan balsam *Impatiens glandulifera*; neither of these species were observed during the extended Phase 1 habitat survey. Whilst buddleia can be invasive in certain circumstances, it is not subject to any legal restriction in relation to causing it to spread or grow in the wild.

3.6 Summary

- 3.6.1 A summary of the habitats and species either confirmed or considered likely present within the Site or within its ecological zone of influence and their likely value at a Geographical frame of reference is summarised in Table 3.1 below.

Table 2. Summary of ecological features.

Ecological Feature	Value (Geographic Frame of Reference)
Non-statutory designated areas	County
Areas of identified biodiversity interest	Local
Off-site habitats of Principle Importance	Local
Habitats within the Site	Less than local
Bats – Foraging and Commuting	Less than local
Breeding birds	Less than local
Invertebrate assemblage	Less than local

- 3.6.2 Whilst bats and breeding birds are considered to be of less than local value, they are protected species and potential impacts on these species are given further consideration below.

4 Impact Assessment & Avoidance, Mitigation and Compensation

4.1 Overview

4.1.1 Based on the ecological baseline which has been gathered, the ecological features that require further consideration are:

- Non-statutory designated areas (LWS and area of identified biodiversity interest) within 2 km of the Site;
- Off-site Habitats of Principle Importance; and
- Protected species including bats and breeding birds

4.1.2 With regards Local wildlife sites, none are present adjacent to the Site, with the closest (The Coal, Kennetmouth and Kings Meadow LWS) being located approximately 400 m north-east of the Site. Given the spatial separation between the Site and these designated areas and the lack of any connecting habitat it is considered that the Proposed Development of the Site will not have an impact on these designated areas. As such, non-statutory designated areas are not considered further within this report. The same rationale is applied to potential impacts onto offsite Habitat of Principal Importance, with none located adjacent or connected to the Site.

4.1.3 The desk study has identified that part of the rail line located adjacent to the north-eastern boundary of the Site is designated as an 'area of identified biodiversity interest' which forms part of a wider green network within Reading. Reading Borough Council Local Plan (Reading Borough Council 2019) Policy EN12 states;

...that the key elements of the Green Network shall be maintained, protected, consolidated, extended and enhanced and permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network'.

4.1.4 Whilst the development proposals will not affect the integrity of the area of identified biodiversity interest, there are opportunities for the landscape design within the Site to add to and strengthen the ecological function of this area and therefore contribute to the wider green network.

4.1.5 With regards to breeding birds which are likely present within the Site, it is considered that the majority of potential impacts can be avoided or mitigated for through appropriate design and implementation of industry standard construction practices.

4.1.6 Whilst there remains the relatively low potential for black restart to nest within the Site, it is not considered that the development of the Site would result in a significant loss of the breeding resource for these species (if they were to breed within the Site) within Reading, and that areas of more suitable breeding habitat are present within the wider Reading area.

4.1.7 Whilst bats may potentially commute and forage within the Site there is no suitable roosting habitat to support these species. In addition, given the Site is located within the centre of Reading it is already subject to a degree of light pollution/ light spill and bat species utilising the Site are therefore likely to be species tolerant of artificial light. As such any additional lighting associated with the construction works or operational phases of the proposals are unlikely to have a significant effect on bats utilising the Site.

Avoidance and Mitigation Measures

General measures

- 4.1.8 General environmental protection measures will be implemented during the construction phase. These measures include:
- All site staff/contractors should all be briefed on the potential for protected species to be present via tool-box talks when they start working on the project - a record of who has had this briefing should be kept;
 - Industry standard pollution control and dust suppression measures are to be followed.

Legislative Compliance Measures

Breeding birds

- 4.1.9 Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended) As detailed within **Appendix C**.
- 4.1.10 Where possible building demolition and vegetation clearance should be undertaken outside of the breeding bird season, e.g undertaken during September to February inclusive. Where this is not a pre-commencement check by a suitably qualified ecologist is to be undertaken immediately prior to the removal/ demolition of the vegetation and or building to confirm the absence of nesting birds. In the event that nesting birds are discovered, works within the vicinity of the nest will need to be delayed until nesting activity has been completed and the nest vacated.

Enhancement measures

- 4.1.11 The National Planning Policy Framework (NPPF, 2019), Paragraph 174 state that local plans and decisions should minimise impacts on and provide net gains for biodiversity, this is further reflected within the Reading Borough Council Local Plan, Policy EN12. In line with national and local planning policy requirements the proposed landscape design provided as **Appendix A** includes the following ecological enhancements.
- Retention of existing mature trees on the southern boundary.
 - Retention of existing trees on the northern boundary to maintain the railway wildlife corridor.
 - Biodiversity roofs on approximately 50% of roof areas creating a diverse open matrix of planting, gravel and wood piles.
 - Bird, Bat and invertebrate boxes integrated onto the buildings and existing large-scale trees.
 - Log piles to the northern boundary.
 - Native hedge planting.
 - Diverse proposed native and non-native tree planting from large scale street trees to smaller scale flowering and fruiting species.
 - Diverse groundcover planting including a mixture of native and non-native species providing nectar sources.

- Net increase in tree cover across the Site linking to Forbury Gardens and the Railway corridor.
- 4.1.12 The native hedgerows planted along the northern boundary will enhance the value of the rail line as a wildlife corridor as well as providing an opportunity to contribute to Readings Green Network as defined in the Local Plan. This hedgerow will also provide suitable nesting habitat for birds as well as providing a food source for invertebrates. Additionally, the other measure proposed will enhance the existing biodiversity value of the Site providing further food sources for invertebrates and therefore species such as bat and birds which feed on them as well as increasing the potential nesting and roosting habitat for bats and birds.

5 Conclusion

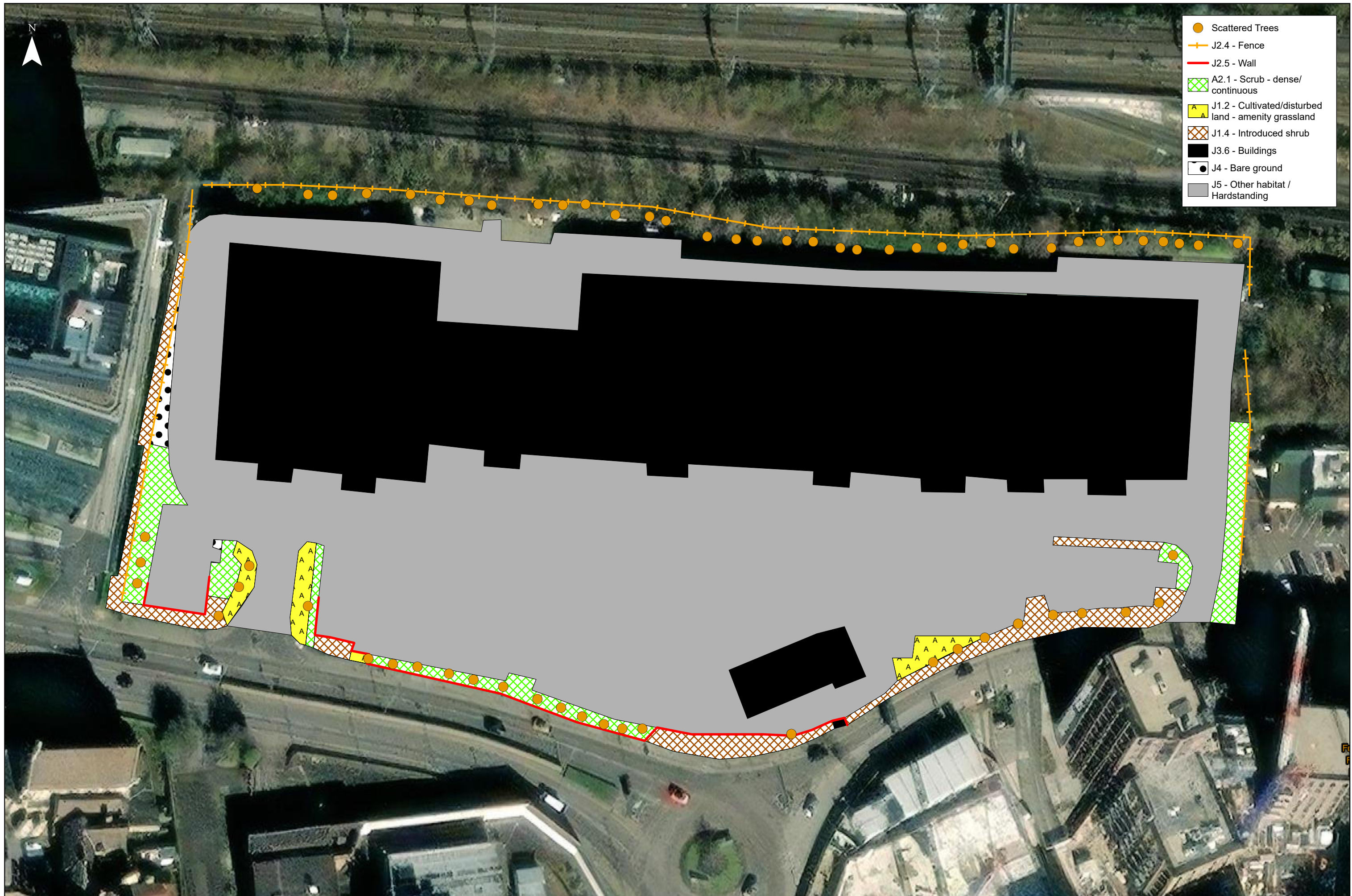
- 5.1.1 The assessment and survey work undertaken of the Site has demonstrated that the Site is not adjacent to or otherwise connected to any statutory designated area, although the rail line adjacent to the northern boundary is partly designated as an 'area of identified biodiversity interest' within the Policy map of the Local Plan.
- 5.1.2 The Site itself supports habitats of limited intrinsic ecological value, but nevertheless these may still potentially support limited numbers of legally protected species, including nesting birds and foraging/ commuting bats.
- 5.1.3 Measures to avoid contravention of the legal protection afforded to birds as well as recommendation for the implementation of industry standard pollution control measures have been recommended with this report. These measures should be further detailed within a Construction Environmental Management Plan (CEMP) which will be adhered to during construction works.
- 5.1.4 The landscape design for the Site seeks to retain existing trees as well as provide enhancements for biodiversity through the planting of a native species hedgerow along the northern boundary, inclusion of biodiversity roofs on the residential buildings and the provision of bird and bat boxes. These measures will provide additional habitat for invertebrates and provide a foraging resource as well as roosting and nesting habitat for bats and birds.
- 5.1.5 Given the limited ecological value of the Site, the measures which are to be implemented to protect breeding birds and the provision for biodiversity within the landscape design it is considered that the proposals are compliant with relevant legislation and planning policy at all levels.

6 References

- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- JNCC (2016) Handbook for Phase 1 Habitat Survey. Peterborough. JNCC. <http://jncc.defra.gov.uk/page-5705> (UK BAP)
- NPPF (2019) Ministry of Housing, Communities and Local Government. National Planning Policy Framework.
- Multi-Agency Geographic Information for the Countryside. <http://www.magic.gov.uk/>.
- Reading Borough Council (2019) Local Plan. [Local Plan Adopted November 2019.pdf \(reading.gov.uk\)](#)

7 Figures

Figure 1: Site Location Plan and Phase 1 Habitat Survey Map



- Scattered Trees
- +— J2.4 - Fence
- J2.5 - Wall
- ▨ A2.1 - Scrub - dense/continuous
- A J1.2 - Cultivated/disturbed land - amenity grassland
- ▨ J1.4 - Introduced shrub
- J3.6 - Buildings
- J4 - Bare ground
- J5 - Other habitat / Hardstanding

Appendix A Landscape General Arrangement (Drg. No 1297-001 Rev.E)



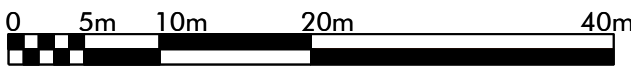
- Key
- Existing Tree Retained
 - Proposed Semi Mature Tree
 - Proposed Multistem Tree
 - Proposed Ground Cover Planting
 - Proposed Rain Garden
 - Proposed Native Hedge
 - Proposed Biodiversity Roof With Photovoltaics
 - Gravel edge to Biodiversity roof
 - Plummary Garden Paving
 - Over Podium Paving
 - Residential Garden Paving
 - Block paving to vehicular access route
 - Asphalt pavement
 - Play Trail
 - Kerb
 - Planter Metal Edge
 - Timber Bench
 - Timber Bleacher/Lounger
 - Freestanding furniture
 - Water Rill
 - Water Feature
 - Cycle Parking
 - boundary to Residents Garden
 - Steps with Tactile and handrail
 - Play Features
 - Play safety surface

Note:

**Architecture illustrative only.
Refer to Architects drawing for detail.**

Drawing to be read in conjunction with the latest revisions of all associated drawings, schedules and specifications.

The Contractor is to ascertain the exact location of all services prior to commencing works on site. Refer to Engineer's drawings for location of services.



Revision	Description	Drawn by	Checked by	Date
-	For Comment	JW	RG	07.06.21
A	for information	JR	RG	05.04.21
B	for information	JR	RG	04.05.23
C	for information	JR	RG	09.05.23
D	for information	JR	RG	17.05.23
E	for information	JR	RG	22.05.23

This drawing is protected by copyright. Contractors must check all dimensions on site. Only figure dimensions are to be worked from. Discrepancies must be reported to architect before proceeding.
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Macgregor • Smith
Landscape Architecture

project	Forbury Retail Park	drawn by	JW
status	For Information	checked by	RG
title	Landscape General Arrangement	date	07.06.21
Xref	xref	scale	1:500@A1
drawing No	1297-001	revision	E

Appendix B Site Photographs



Photograph 1: Hardstanding and scattered trees by entrance to Site on southern boundary.



Photograph 2: Building and hardstanding along western Site boundary.



Photograph 3: Scattered trees and scrub along the northern Site boundary – trees located both in and outside of the boundary fence. Hardstanding access road to the main building.



Photograph 4: Nesting birds within cigarette bin on the northern elevation of the main building.



Photograph 5: Nesting bird in a tree on the western boundary.



Photograph 6: Scattered trees and dense scrub along northern boundary, with hardstanding access road and main building.



Photograph 7: Scattered trees in north-eastern corner of the Site.



Photograph 8: Scrub and hardstanding along eastern boundary.



Photograph 9: Hardstanding, introduced shrub and building were the predominant habitats on Site



Photograph 10: Scattered trees, introduced shrub and amenity grassland along southern boundary.



Photograph 11: Scattered trees and shrubs along southern boundary adjacent to the smaller building.



Photograph 12: Scattered trees and shrubs along southern boundary wall.

Appendix C Field Notes

Phase 1 Habitat type	Habitat location and photo reference	Key species and observations
Amenity grassland (J1.2)	Small areas of amenity grassland were present along the southern boundary of the Site, between the hardstanding and the scattered trees, scrub and introduced shrubs. (Photograph 10)	Perennial rye-grass <i>Lolium perenne</i> , yarrow <i>Achillea millefolium</i> , broad-leaved dock <i>Rumex obtusifolius</i> , meadow buttercup <i>Ranunculus acris</i> .
Scattered Broadleaved trees (A3.1)	Scattered trees were present along the northern and southern Site boundaries. The treeline along the northern boundary included trees within and outside of the boundary fenceline; a number of trees were growing adjacent to but outwith the fenceline on railway land. (Photographs 1, 3, 6, 7, 10, 12)	Scattered tree species included silver birch <i>Betula pendula</i> , field maple <i>Acer campestre</i> , London plane <i>Platanus × acerifolia</i> , ash <i>Fraxinus excelsior</i> , sycamore <i>Acer pseudoplatanus</i> , whitebeam <i>Sorbus aria</i> and small-leaved lime <i>Tilia cordata</i> .
Dense Scrub (A2.1)	Although not shown on Figure 1, dense scrub was present beneath the scattered trees along the northern boundary, and also beneath the trees along the southern boundary to the west. Dense scrub along the fence-line formed the eastern boundary, and the southern part of the western boundary. (Photographs 3, 6 and 8)	These areas supported bramble <i>Rubus fruticosus</i> , laurel <i>Prunus laurocerasus</i> , dogwood <i>Cornus sanguinea</i> , black-thorn <i>Prunus spinosa</i> , scarlet firethorn <i>Pyracantha coccinea</i> and buddleia <i>Buddleia davidii</i> .
Introduced shrub (J1.4)	The southern and western boundaries contained introduced shrubs beneath the scattered trees or in raised bedding areas (Photographs 9 and 11)	These areas were dominated by small-leaved cotoneaster <i>Cotoneaster microphyllus</i> , lavender <i>Lavandula sp.</i>
Bare ground (J4)	A small area of bare ground was present in the north-western corner of the Site behind a crash barrier.	N/A
Boundary Features	A wooden or wire fence lined the northern, eastern and western site boundaries. The southern boundary was open or enclosed by a wall.	N/A
Hardstanding (J5)	Hardstanding covered a large proportion of the Site, forming the car-parking and access areas.	N/A
Buildings (J3.6)	A very large building ran almost the width of the Site. A second smaller building was situated near the southern boundary, and a substation was situated against the northern boundary (Photograph 1, 2, 3, 6 and 9)	The main building has the potential to support nesting birds.

Appendix D Relevant Legislation

D.1.1 This section briefly summarises legislation pertaining to habitats and species relevant to this report. The following text does not constitute legal advice.

Ecological Feature	Legislation (England)	Relevant Prohibited Actions
Breeding Birds	Wildlife and Countryside Act 1981 (as amended)	Intentionally kill, injure, or take any wild bird or their eggs or nests.
Bats (all UK species)	Schedule 2 of Conservation of Habitats and Species Regulations 2017 (as amended) Schedule 5 of Wildlife and Countryside	- Deliberately capture, injure or kill a bat; - Deliberately disturb a bat (disturbance is defined as an action which is likely to: (i) Impair their ability to survive, to breed or reproduce, or to rear or nurture their young; (ii) Impair their ability to hibernate or migrate; or (iii) Affect significantly the local distribution or abundance of the species); - Damage or destroy a bat roost; - Intentionally or recklessly disturb a bat at a roost; or - Intentionally or recklessly obstruct access to a roost. In this interpretation, a bat roost is "any structure or place which any wild [bat]...uses for shelter or protection". Legal opinion is that the roost is protected whether or not the bats are present at the time.
Priority Species and Habitats	Natural Environment and Rural Communities (NERC) Act 2006	Priority species and habitats are those species/habitats shown on the England Biodiversity List published by the Secretary of State in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Planning authorities have a duty under Section 40 of the NERC Act to have regard to priority species and habitats in exercising their functions including development control and planning.