

BIODIVERSITY NET GAIN CALCULATION

LAND AT HEADLEY ROAD EAST WOODLEY READING RG5 4JG

Client: Justin Treverton

Our reference: ECO4028

Report date: 23 March 2026

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REPORT ISSUED IN ELECTRONIC FORMAT ONLY



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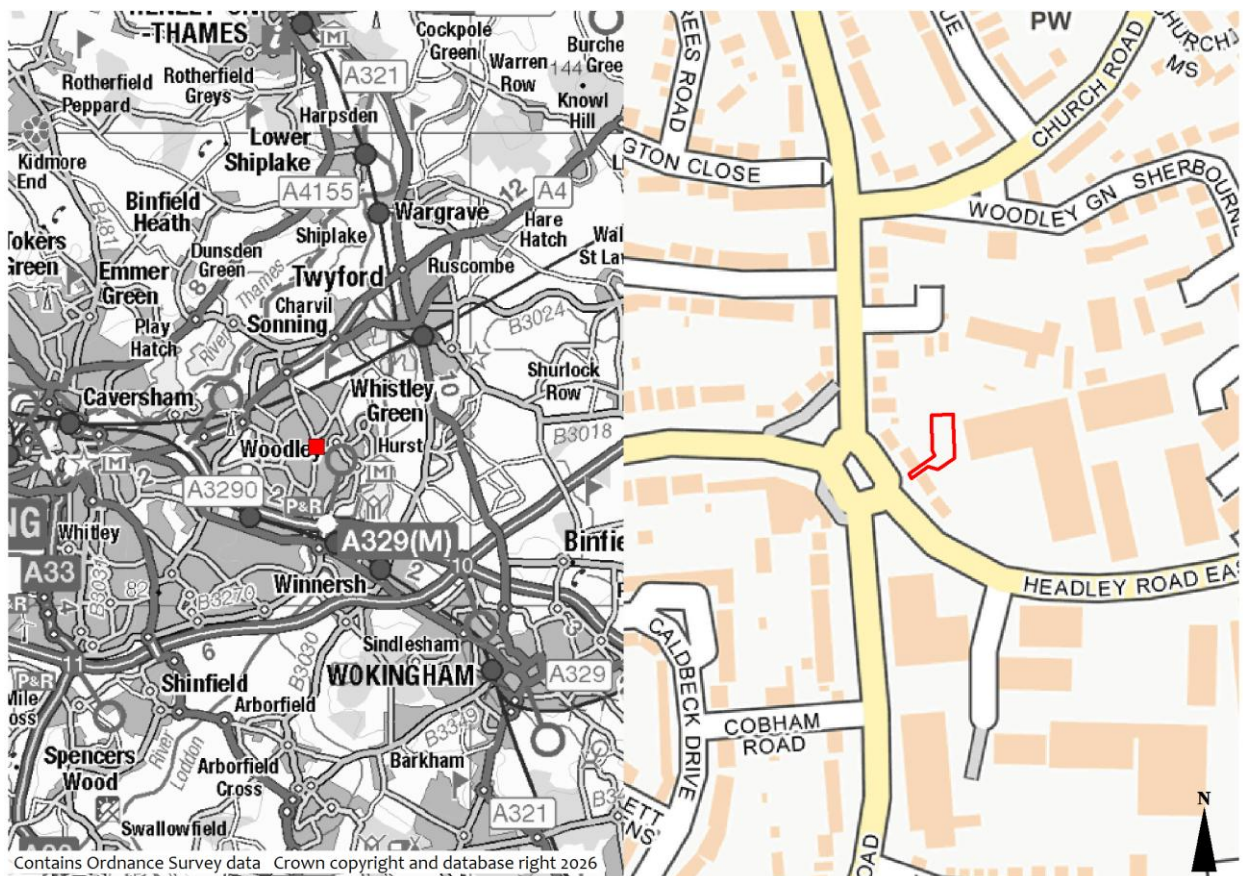
1.0 Survey and reporting

- 1.1 This report details the results of a Biodiversity Net Gain (BNG) calculation for a proposed development at a parcel of land at Headley Road East, Woodley, Reading, RG5 4JG.
- 1.2 It has been undertaken using the Statutory Biodiversity Metric published by DEFRA on 29 November 2023 (updated in July 2024).

Application site

- 1.3 The application site is located off Headley Road East, a residential Road in Woodley, east of Reading (Grid reference: SU 7674 7338, Figure 1).
- 1.4 It comprises a hardstanding yard with a block of garages at the northeast corner. There are three small trees within the site.
- 1.5 The total area of the application site is approximately 0.06 hectares.
- 1.6 The local planning authority is Wokingham Borough Council.

Figure 1 – Site location



Details of proposed works

- 1.7 It is proposed to demolish the garages and erect a detached house with associated hard and soft landscaping (see Figure 2).
- 1.8 No trees will be removed to facilitate the development.

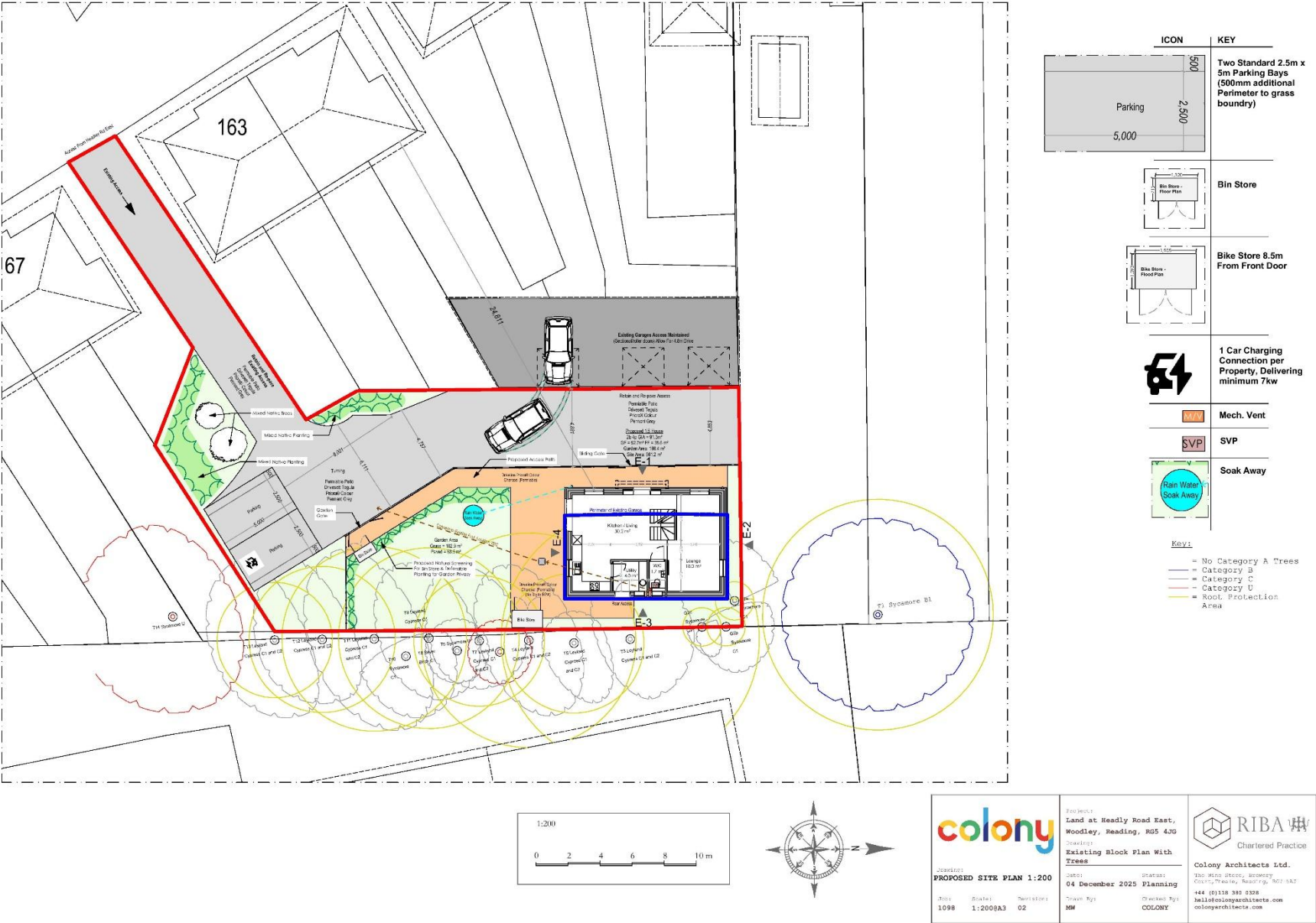
Survey to inform the assessment

- 1.9 The assessment was based on an ecological survey, carried out on 02 March 2026.
- 1.10 Weather conditions during the survey were 13°C with 2/8ths cloud cover, wind at Beaufort scale 2 with no rain.

Surveyor details

- 1.11 The survey was undertaken by Matthew Stephenson BSc (Hons) (assistant ecologist) and Zoe Maidment BSc (Hons) (assistant ecologist) of GS Ecology Ltd.

Figure 2 – Proposed site layout



2.0 Biodiversity net gain calculation

- 2.1 The Environment Act 2021 became law on 9 November 2021. It requires (through amendments to the Town and Country Planning Act 1990) all planning permissions in England, with some exemptions, to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity gain plan.
- 2.2 This system is commonly referred to as Biodiversity Net Gain and it is a cornerstone of the government's 25 Year Environment Plan.
- 2.3 This became mandatory on 12 February 2024 for major applications and 2 April 2024 for minor applications.
- 2.4 Article 7 of The Town and Country Planning (Development Management Procedure) (England) Order 2015 sets out the minimum information that a planning application must be accompanied by (see Table 1 below).
- 2.5 It is worth noting that the minimum information does not require an assessment of post development biodiversity units. This is because this information would have to be provided in the Biodiversity Gain Plan when the biodiversity gain condition is discharged.

Table 1 – Statutory BNG minimum information requirements

Minimum information	Response for this application
1) Confirmation that the applicant believes that planning permission, if granted, the development would be subject to the biodiversity gain condition;	No, this development would not be subject to a biodiversity gain condition, as the proposals are subject to the de minimis exemption (see below)
2) The pre-development biodiversity value(s), either on the date of application or earlier proposed date (as appropriate);	See completed Statutory Metric tool provided with this report.
3) Where the applicant proposes to use an earlier date, this proposed earlier date and the reasons for proposing that date;	02 March 2026 – the date of the survey
4) The completed metric calculation tool showing the calculations of the pre-development biodiversity value of the onsite habitat on the date of application (or proposed earlier date) including the publication date of the biodiversity metric used to calculate that value;	Provided with this report
5) A statement whether activities have been carried out prior to the date of application (or earlier proposed date), that result in loss of onsite biodiversity value ('degradation'), and where they have: - a statement to the effect that these activities have been carried out; - the date immediately before these activities were carried out; - the pre-development biodiversity value of the onsite habitat on this date; - the completed metric calculation tool showing the calculations, and - any available supporting evidence of this;	No activities have been carried out prior to the date of survey that have resulted in the loss of onsite biodiversity value.
6) A description of any irreplaceable habitat (as set out in column 1 of the Schedule to the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024) on the land to which the application relates, that exists on the date of application, (or an earlier date); and	There are no irreplaceable habitats on the land to which the application relates
7) Plan(s), drawn to an identified scale and showing the direction of North, showing onsite habitat existing on the date of application (or earlier proposed date), including any irreplaceable habitat (if applicable).	See Appendices 3 and 4

Degradation of habitats

- 2.6 There are special provisions for the calculation of the pre-development biodiversity value of onsite habitat when loss or impact to habitats (or ‘degradation’) has occurred prior to the submission of a planning application and Biodiversity Gain Plan in order to discourage the deliberate degradation of existing onsite habitats to reduce the pre-development biodiversity value.
- 2.7 For the Biodiversity Plan, Paragraph 6 of Schedule 7A of the Town and Country Planning Act 1990 makes provision relating to unauthorised degradation takes place, and Paragraph 6A of the 1990 Act makes provision relating to degradation taking place which is in accordance with a planning permission:
- Where unauthorised degradation of the onsite habitat has taken place on the land between 30 January 2020 and the date of relevant date, the biodiversity pre-development value of the onsite habitat should be calculated as the biodiversity value of the habitat on the date immediately before the carrying out of these degradation activities. The relevant date should therefore be set as a date immediately before these activities. Unauthorised degradation of onsite habitat is any degradation which is not in accordance with a previous planning permission.
 - If activities to implement or in connection with a planning permission are carried out after 25 August 2023 that lower the biodiversity value of the onsite habitat, the pre-development biodiversity value of the onsite habitat is taken to be the biodiversity value immediately before the carrying out of the activities. The relevant date should therefore be set as a date immediately before these activities.
- 2.8 If there has been degradation and there is insufficient evidence about the biodiversity value of the onsite habitat immediately before the degradation, the pre-development biodiversity value of the onsite habitat must be taken to be the highest biodiversity value of the habitat which is reasonably supported by any available evidence relating to it. This requirement must be applied to the calculation of pre-development biodiversity value in the metric tool, and the Biodiversity Gain Plan template asks for information regarding whether there has been prior habitat degradation.
- 2.9 Unauthorised degradation is defined in the environment act as
- “activities on land on or after 30 January 2020 otherwise than in accordance with—*
- (i) planning permission, or*
- (ii) any other permission of a kind specified by the Secretary of State by regulations”*

Exemptions to mandatory BNG

- 2.10 There are a number of developments that are exempt from the mandatory BNG requirements. These are detailed in The Biodiversity Gain Requirements (Exemptions) Regulations 2024 and are as follows:

- (1) Developments that does not impact a priority habitat¹ and impacts less than 25 square metres (5m by 5m) of on-site habitat and less than 5 metres of on-site linear habitats such as hedgerows or watercourses.
- (2) Applications made by householders as defined within article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015.
- (3) Developments of no more than 9 dwellings in a site less than 0.5 hectares that consist exclusively of dwellings that are self-build or custom housebuilding as defined in section 1(A1) of the Self-build and Custom Housebuilding Act 2015
- (4) Developments undertaken mainly for the purpose of fulfilling the BNG planning condition for another development
- (5) Urgent crown developments
- (6) Developments that are granted planning permission by a development order (including permitted development rights)

The de-minimis exemption

- 2.11 The Biodiversity Gain Requirements (Exemptions) Regulations 2024 specify which types of development are exempt from statutory BNG. These read, at section 4:

“(1) The biodiversity gain planning condition does not apply in relation to planning permission for development which meets the first and second conditions.

(2) The first condition is that the development does not impact an onsite priority habitat.

(3) The second condition is that the development impacts—

(a) less than 25 square metres of onsite habitat that has biodiversity value greater than zero; and

(b) less than 5 metres in length of onsite linear habitat.

(4) For the purposes of this regulation—

(a) “priority habitat” means a habitat specified in a list published under section 41 of the Natural Environment and Rural Communities Act 2006(2);

(b) a habitat is impacted where the habitat is lost or degraded such that there is a decrease in the biodiversity value of that habitat;

(c) “linear habitat” means the types of hedgerow habitat or watercourse habitat identified for the purposes of the biodiversity metric(3) (which are measured by length (expressed in kilometres) rather than area).”

- 2.12 The development will result in the loss of 24m² ‘Urban – Bare ground’ habitat and the conversion of 18m² of this to ‘Urban vegetated garden’ – i.e. 6m² will be ‘impacted’ by the proposed development. No other habitats will be affected by the proposals.

¹ “priority habitat” means a habitat specified in a list published under section 41 of the Natural Environment and Rural Communities Act 2006(2)

- 2.13 'Urban – Bare ground' is not a 'priority habitat' and as such the scheme is below the de-minimis threshold.

Purpose of this report

- 2.14 The purpose of this report is to provide the planning authority with the information required to determine the planning application in relation to BNG. It includes the minimum information as set out in the Article 7 of The Town and Country Planning (Development Management Procedure) (England) Order 2015 (see Table 1 above) – in this case to demonstrate that the development is exempt from statutory BNG.
- 2.15 In this case, as the development is below the 'de-minimis threshold' the calculation has been undertaken to demonstrate that the proposals will result in the enhancement of biodiversity as per chapter 15 of the National Planning Policy Framework (NPPF) and local planning policy.

The Statutory Biodiversity Metric

- 2.16 The Statutory Biodiversity Metric is a system for calculation habitat losses or gains from a project using habitats, measured using Habitat Units (HUs) as a proxy measure. It is accompanied by an excel spreadsheet calculator that assigns values to habitats before a change (PRE-intervention values) and assumed habitat values after the change (POST-intervention values).
- 2.17 The metric uses the habitat categories that mainly align with UK Habitat Classification Habitat (which is a system for habitat classification that has been developed as an alternative to the Phase 1 Habitat Classification).
- 2.18 The metric calculates two values: PRE-intervention HU Values and POST-intervention HU values – described below.

PRE-intervention Habitat Unit Values

- 2.19 The baseline or PRE-intervention Habitat Unit (HU) Value is a factor of:
- The area of the habitat parcel
 - The distinctiveness of the Habitat Type [Very Low; Low; Medium; High; Very High]
 - The habitat condition assessed using the Condition assessment sheets - [Poor; Moderate; Good]
 - The strategic significance [High, within area formally identified in local strategy; Moderate - location ecologically desirable but not in local strategy; Low - area/compensation not in local strategy/ no local strategy]

POST-intervention HU values

- 2.20 The POST-intervention HU value is a factor of:
- The area of the habitat parcel
 - The distinctiveness of the Habitat Type ranging [Very Low; Low; Medium; High; Very High]
 - The target habitat condition at a defined number of years [Poor; Moderate; Good]
 - The strategic significance [High, within area formally identified in local strategy; Moderate - location ecologically desirable but not in local strategy; Low - area/compensation not in local strategy/ no local strategy]
 - The time to target condition [assigned by the Metric to a default time]
 - The difficulty of creation of that habitat [assigned by the Metric]

- The spatial risk category - a multiplier to discourage creation of habitats far from the site of biodiversity loss.

Types of HU

2.21 There are three types of HU:

- Area habitats (such as grasslands and woodlands) – “A-HUs”
- Linear hedgerows and lines of trees – “L-HUs”
- Linear rivers and streams – “R-HUs”

2.22 The HU types are not interchangeable.

Description of habitats within the red line planning boundary

2.23 The application site comprises a hardstanding access drive and yard with a block of four garages at the northeastern corner. There are three small sycamore trees within the site.

2.24 A Phase 1 habitat map, associated target notes, habitat descriptions, and photographs are provided in our separate Ecological Assessment report dated 04 March 2026 (ref: ECO4028).

Assumptions made

2.25 The proposed plan (see Figure 2) was used for the post-intervention habitats.

2.26 Maps showing habitats before and after development are given in Appendix 3 and 4.

Area Habitat Units

Pre-intervention

2.27 The Statutory Biodiversity Metric Habitats within the application site at the time of our survey, and their extent and condition pre-development are as follows:

Urban - Developed land -Sealed surface (0.054ha pre-development).

2.28 This is the garage block and hardstanding.

2.29 There is no condition assessment for this habitat type as the metric does not require one.

2.30 Some area of hardstanding will be converted into vegetated garden.

Urban – Bareground (0.002ha pre-development)

2.31 This is the strips of bare ground bordering the garage block.

2.32 This is in “poor” condition – See Appendix 1.

2.33 Approximately 6m² will be lost to hardstanding and 18m² lost to vegetated garden to facilitate development.

Individual trees – Urban Tree (0.0122 ha as per the Metric’s Tree Helper)

2.34 These are the three sycamore trees at the northeastern corner of the application site.

2.35 The trees are in ‘poor’ condition – see Appendix 1.

2.36 These will be retained.

Post-intervention

New and retained: Urban - Developed land- sealed surface (0.04ha total post development)

2.38 This is the new and existing dwellings and its associated driveway, access paths, and hardstanding.

2.39 There is no condition assessment for this habitat type as the metric does not require one.

New: Urban – Vegetated garden (0.017ha total post development)

2.40 This is the new areas of amenity lawn and shrub beds.

2.41 There is no condition assessment for this habitat type as the metric does not require one.

2.42 The UK Habitat Classification definition for ‘Vegetated Garden’ is:

“Garden that is principally vegetated, for example with large areas of grass and flower beds.”

2.43 There is no condition assessment for this habitat type as the metric does not require one.

2.44 **NB.** New trees planted in private gardens are not counted in the metric (there are two trees shown as being planted in the new garden area) as the guidance states:

“You should not:

- count newly planted trees sited within private gardens”.*

Retained - Individual tree (0.0122 ha as per the Metric’s Tree Helper)

2.45 This is the retained sycamore trees

2.46 The trees will remain in ‘moderate’ condition.

Linear Habitat Units

2.47 **Pre-intervention**

Non-native and ornamental hedgerow (0.005km, 5m)

2.48 This is the ornamental cypress hedge shared with the neighbouring property. It is assumed that this will be retained.

2.49 Non-native and ornamental hedges automatically achieve “poor” condition.

Post-intervention

Retained: Non-native and ornamental hedgerow (0.005km, 5m)

2.50 This is the retained ornamental cypress hedge.

3.0 Results and assessment

- 3.1 The development will impact approximately 6m² of Urban – bare ground habitat, which is not a priority habitat. The development is therefore below the de-minimis threshold and exempt from statutory BNG.
- 3.2 Regardless a BNG calculation has been undertaken which shows that:
- There are 0.05 Area Habitat Units (A-HUs) before development and 0.08A-HUs after development (as a result hardstanding areas being converted to garden). This equates to a net gain of 0.03 A-HUs or 54.56% above the on-site A-HU baseline.
 - There are 0.01 Linear Habitat Units (L-HUs) before and after the development, which equates to no change in L-HUs.
- 3.3 The proposals would therefore result in the enhancement of biodiversity as per chapter 15 of the National Planning Policy Framework (NPPF) and local planning policy.
- 3.4 The summary sheet from the Metric tool is given in Appendix 2.

Appendix 1 – condition assessment sheets

Individual trees – Urban tree

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	No	Sycamore trees
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	No	
C	The tree is mature (or more than 50% within the block are mature) ¹ .	No	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	No	Trees growing through fencing, building material storage against the trees
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	
Number of criteria passed			
Condition Assessment Result (out of 6)	Condition Assessment Score	Score Achieved ×/√	
Passes 5 or 6 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		
Passes 2 or fewer criteria	Poor (1)	✓	
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.			

Bare ground

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types :			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No	
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	No	
C	Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes	
Condition Assessment Result		Condition Assessment Score	Score Achieved ×/√
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic)			
- Passes all 3 core criteria; AND - Meets the requirements for Good condition within criterion C.		Good (3)	
- Passes 2 of 3 core criteria; OR - Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)	
Passes 0 or 1 of 3 core criteria.		Poor (1)	✓

Appendix 2 – Statutory Biodiversity Metric summary sheet

Land at Headley Road East		Return to results menu		
Headline Results				
Scroll down for final results ▲				
On-site baseline	Habitat units	0.05		
	Hedgerow units	0.01		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.08		
	Hedgerow units	0.01		
	Watercourse units	0.00		
On-site net change (units & percentage)	Habitat units	0.03	54.56%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
On-site net gain is less than target set ▲				
Off-site baseline	Habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	Habitat units	0.00	0.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.03		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	Habitat units	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.03		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	54.56%		
	Hedgerow units	0.00%		
	Watercourse units	0.00%		
Total net gain achieved is less than target set ▲				
Trading rules satisfied?	Yes ✓			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	0.05	0.06	0.00
Hedgerow units	10.00%	0.01	0.01	0.00
Watercourse units	10.00%	0.00	0.00	0.00
No additional area habitat units required to meet target ✓				
No additional watercourse units required to meet target ✓				

Appendix 3 – Habitats before development

Legend

 Application site boundary

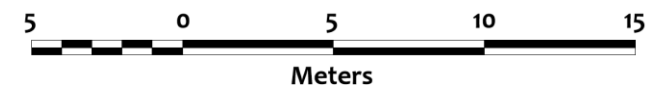
Habitat type before development

 Urban - Developed land- sealed surface

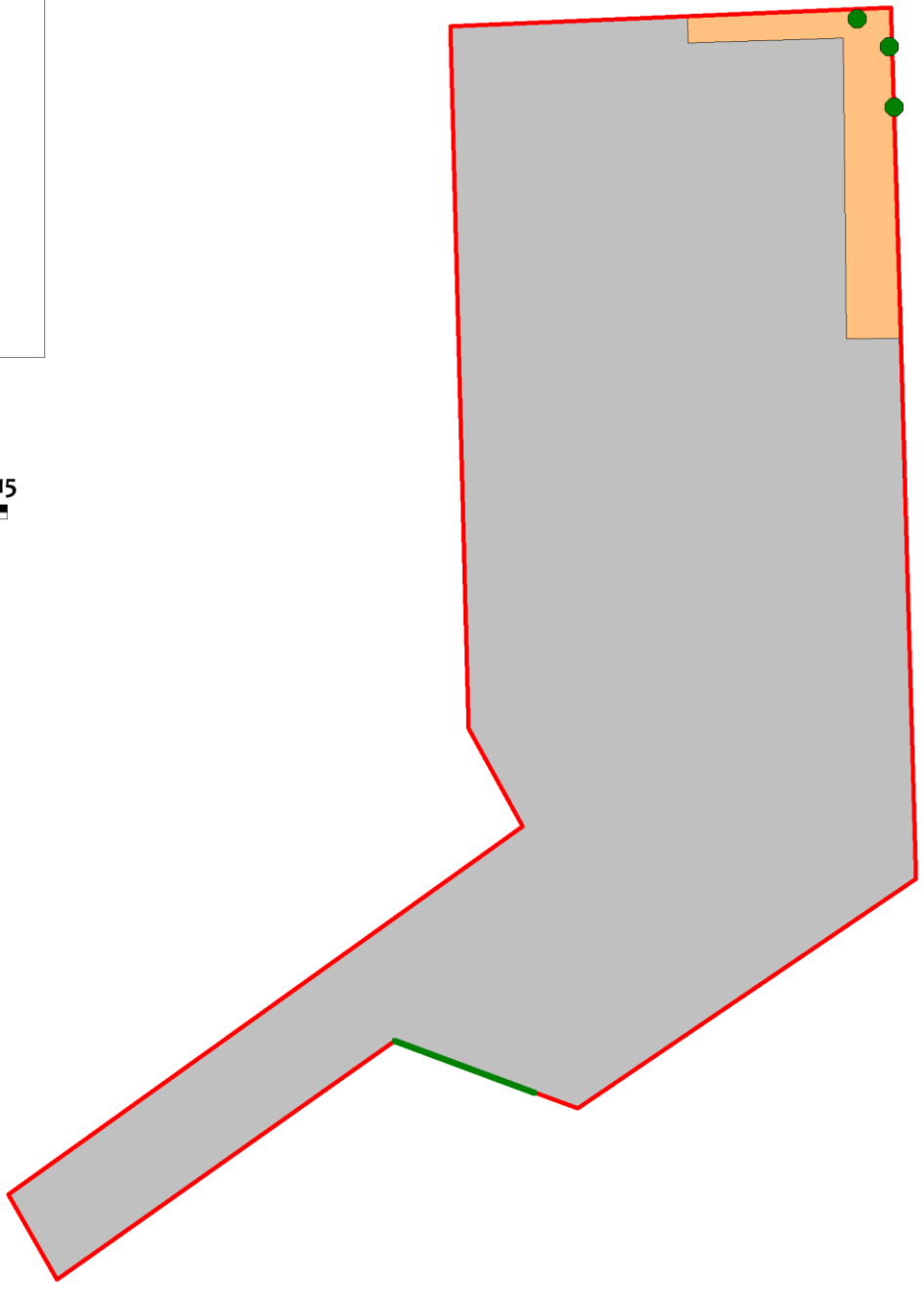
 Urban - bareground

 Small tree

 Ornamental hedge



Scale: 1:250 when printed on A4



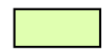
Appendix 4 – Habitats after development

Legend

 Application site boundary

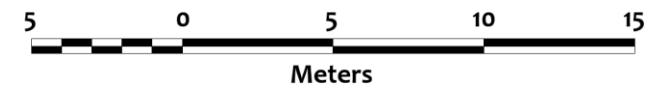
Habitat type after development

 Urban - Developed land- sealed surface

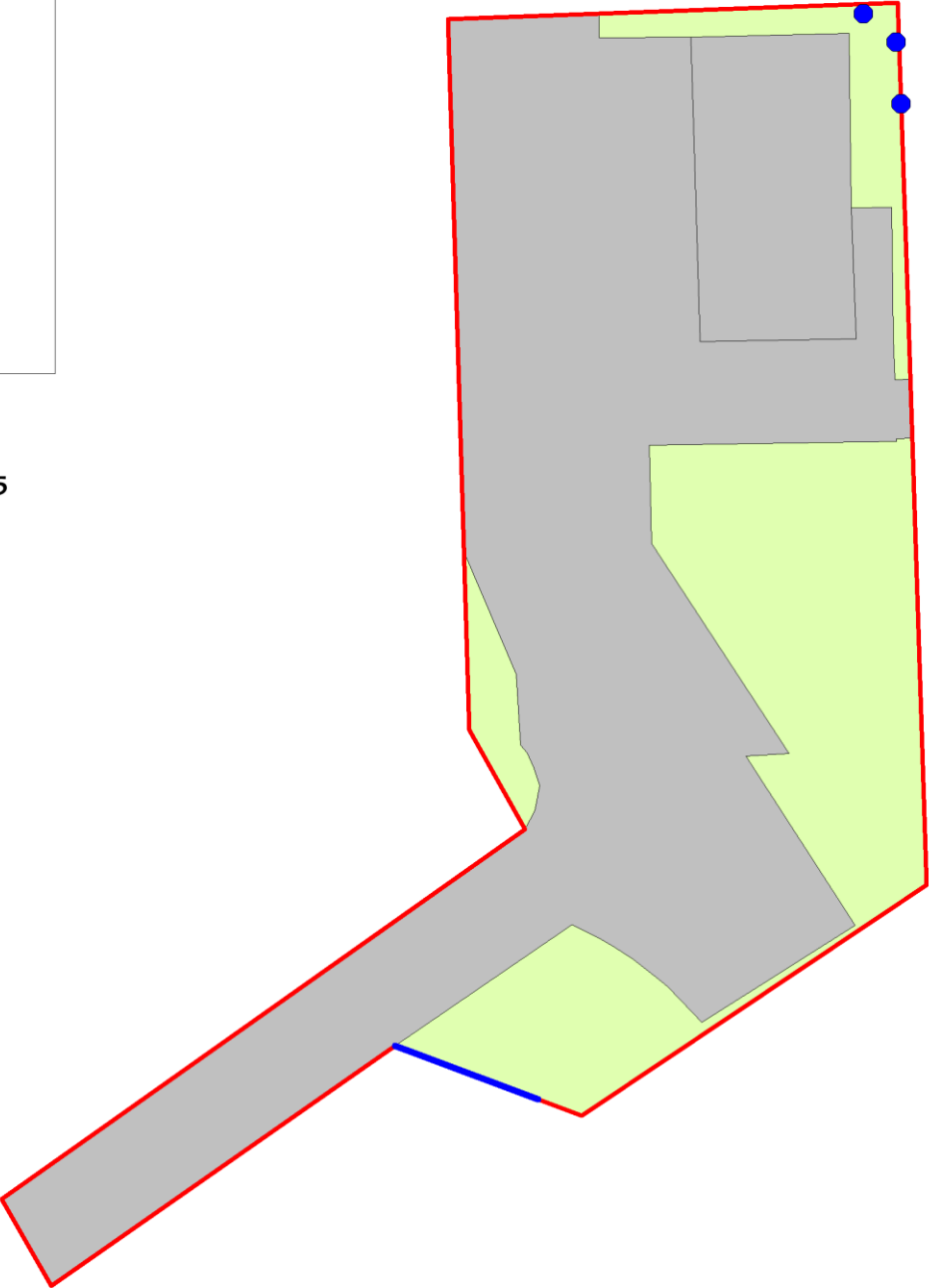
 Urban - Vegetated garden

 Retained small tree

 Retained ornamental hedgerow



Scale: 1:250 when printed on A4



Appendix 5 - About GS Ecology

Established in 2009, GS Ecology is an independent ecological consultancy in Berkshire. We carry-out surveys and ecological consultancy services for public and private sector clients.

Our work is undertaken by experienced and qualified ecologists, who are members of the Chartered Institute of Ecology and Environmental Managers. Our services include:

- Ecology surveying and reporting to inform planning applications, e.g.
 - Preliminary Ecological Appraisal
 - Extended Phase 1 Habitat Survey
 - Protected species surveys, e.g. bats, badgers, dormouse, great crested newts
- BREEAM ecology assessments – to demonstrate the sustainability of a new building
- Protected species licensing such as bat and great crested newt licences for development sites after planning permission has been obtained
- Providing advice to land managers and writing ecological management plans, such as woodland management plans and farm environmental plans for England woodland Grant Scheme and Environmental Stewardship applications
- Providing ecology advice to Local Authorities and Local Planning Authorities