

Loddon Garden Village / Thames Valley Science Park Link Road (LGV / TVSP Link Road) Biodiversity Net Gain

Prepared on behalf of

University of Reading

Final Report

10 March 2026

23/42 -26B

Loddon Garden Village / Thames Valley Science Park Link Road (LGV / TVSP Link Road)

Biodiversity Net Gain

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Biodiversity Net Gain

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BIODIVERSITY GAIN VALIDATION STATEMENT

This Statement provides the minimum information required for Wokingham Borough Council to validate the planning application for the Proposals, as set out in Article 7 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended by The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024).

EPR hereby confirms that the Applicant believes that planning permission, if granted, would be subject to the biodiversity gain condition.

The on-site pre-development biodiversity value is a combination of the date that the application is submitted, and the committed development associated with planning application 232995. Where the baseline is taken as the data of submission, no activities resulting in a loss of on-site biodiversity value (degradation) have taken place between 30 January 2020 and this date.

A completed Statutory Biodiversity Metric Calculation Tool (published on 3 July 2025) has been submitted with the Application as part of the Information for Biodiversity Net Gain Pack. This shows the calculations of the pre-development biodiversity value of the onsite habitat on the date of application. The baseline on-site biodiversity value is calculated as follows:

- 18.88 Area Habitat units
- 1.94 Hedgerow units
- 0.05 Watercourse units

Plans, drawn to an identified scale and showing the direction of North, are included within this document (**Figures 1, 2 and 3**) showing the on-site habitat existing on the date of application, to include previous approved committed development, including any irreplaceable habitat if present.

Loddon Garden Village / Thames Valley Science Park Link Road (LGV / TVSP Link Road)

Biodiversity Net Gain

1. INTRODUCTION

Scope

- 1.1 This Technical Appendix sets out the details of the Biodiversity Net Gain calculations completed for the Proposed Development including:
- Assessment Methodology;
 - Summary of evidence underpinning Metric decisions;
 - Assumptions and Limitations;
 - Headline Results;
 - Summary of proposed significant on-site habitat enhancements;
 - Overview of proposed arrangements for BNG delivery and monitoring.
- 1.2 It is equivalent to the 'BNG Design Stage Report' recommended by the Chartered Institute of Ecology and Environmental Management (CIEEM) in their Biodiversity Net Gain Report & Audit Templates guidance document (CIEEM, 2021a).

Description of Site

- 1.3 The Site land use comprises agriculture predominantly of cropland field and a pasture field, with bordering hedgerows and broadleaved trees. Part of the Site comprises the previously approved access road for the Natural History Museum (planning application reference: 232995) which includes the road and associated landscaping.

Description of Development

- 1.4 The development description is as follows:

“Full planning permission for the construction of a Spine Road between the Thames Valley Science Park (Application Ref: 232995) and Loddon Garden Village (Application Ref: 252498) to support delivery of Local Plan Update Policy SS13, landscaping, surface water attenuation and other associated works.”

Legislation and Policy Context

- 1.5 A minimum 10% net gain in biodiversity, as measured by the Statutory Biodiversity Metric (DEFRA, 2024a,) is now a condition of most types of planning permission in England under the Environment Act 2021 and associated secondary legislation.

- 1.6 Guidance has clarified that where present on-site, the 10% gain requirement applies individually to three categories of habitat: 'Area Habitats', 'Hedgerows', and 'Watercourses'. This is measured in 'units' which can be delivered on-site, off-site, or a combination of both, and must be secured for a minimum of 30 years.
- 1.7 The Site lies within the footprint of the Policy SS13 site allocation as set out within the Wokingham Borough Local Plan Update 2023-2040. Under this local planning policy, a 20% biodiversity net gain is required.
- 1.8 The National Planning Policy Framework (NPPF) (DLUHC, 2024) requires local plans to "identify and pursue opportunities for securing measurable net gains in biodiversity" and enhance the natural and local environment by "minimising impacts on and providing net gains for biodiversity".

Guidance

- 1.9 The following guidance documents have informed the BNG assessment and overall approach:
- Defra's Biodiversity Gain Guidance, available at: <https://www.gov.uk/government/collections/biodiversity-net-gain>;
 - The Statutory Biodiversity Metric User Guide (DEFRA, 2024);
 - The UK Habitat Classification Version 2.0 (UKHab Ltd, 2023);
 - Biodiversity Net Gain. Good Practice Principles for Development – A Practical Guide (Baker et al., 2019);
 - Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021a);
 - Good Practice Requirements for Delivering Biodiversity Net Gain (On- and Off-Site) (CIEEM, 2021b); and
 - BS8683:2021 Process for designing and implementing Biodiversity Net Gain – Specification (BSI, 2021).

2. ASSESSMENT METHODOLOGY

Metric Version and Assessors

- 2.1 The Statutory Biodiversity Metric and Condition Assessments published July 2025 were used for this BNG assessment.
- 2.2 The calculations were carried out by Katie Cammack BSc (Hons) MSc MCIEEM and reviewed by Alison Hogan BSc (Hons) MSc MCIEEM, both experienced ecologists and BNG practitioners.

Baseline Surveys

On-Site

- 2.3 Baseline habitat and condition assessment surveys were carried out by EPR botanist Jodie Southgate BA (Hons) MSc MCIEEM. An update walkover survey was completed by Senior Ecologist Siobhan Pryke BSc (Hons) to confirm habitats on the Site remained unchanged since previous surveys. The survey dates are as follows:

Table 2.1: Baseline habitat survey dates

Date	Survey Type	Surveyor(s)
30/03/2022	Broad habitat survey	Jodie Southgate
27/07/2022	Habitat survey and condition assessment	Jodie Southgate
14/09/2022	Habitat condition assessment	Jodie Southgate
26/06/2024	Habitat survey and condition assessment	Jodie Southgate
04/07/2024	Habitat survey and condition assessment	Jodie Southgate
10/07/2024	Habitat condition assessment	Jodie Southgate
05/02/2026	Walkover survey	Siobhan Pryke

- 2.4 Habitat mapping was undertaken according to the UK Habitat Classification v.2.01 methodology (UKHab Ltd, 2023) and translated into BNG habitat categories where necessary.
- 2.5 Following the surveys, each area or length of habitat was assigned an individual 'Habitat ID' (**Figure 1**) and mapped in ESRI ArcGIS software (**Figure 2**).

Post-Development Plans

On-Site

- 2.6 The following plans produced by other technical consultants were used as the basis for the post-development calculations. These plans were imported into ArcGIS software and each line or polygon was assigned a BNG habitat type and target condition (**Figure 3**):
- TVSP Link Road FPS – Landscape Planting Plan Sheets 1- 10 (Savills), Dated 05/03/2026

Metric Inputs

- 2.7 As set out in the Statutory Metric User Guide (DEFRA, 2024), one of the key principles of the Biodiversity Metric is that “this biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice”.
- 2.8 When completing a Metric, the assessor must therefore make a number of decisions based on available evidence (such as ecological survey data), professional judgement, and ecological expertise. The User Guide (DEFRA, 2024) also states that “Evidence for metric decisions should be provided and signposted within the ‘User Comments’ column of the biodiversity metric tool”.
- 2.9 To ensure that the Metric Calculation Tool remains as user-friendly as possible, the following paragraphs expand upon the User Comments to provide more detail on the decisions behind the data entered into the Metric, where this is considered necessary and proportionate.

Existing Planning Consents

- 2.10 Certain areas within the Site boundary are already committed to habitat creation/enhancement measures, secured under existing planning consents (planning application reference: 232995). These areas are shown on **Figure 3**.
- 2.11 During pre-application discussions, Wokingham Borough Council confirmed that only parts of the application that are not the subject of extant planning permissions would be required to deliver an additional 20% biodiversity net gain in relation to this planning application.
- 2.12 In order to accurately demonstrate that the land outside of planning application 232995 is able to deliver a 20% biodiversity net gain without reliance on committed habitat creation, separate metrics have been used and submitted.

Planning Application 232995

- 2.13 The metric submitted covers land within the redline boundary which has habitat creation commitments secured under planning permission 232995. Minor amendments to these areas were required for the roads and footpaths to connect to the proposed link road. This metric has therefore been submitted to demonstrate that a net gain over and above the 20% commitment of the permission is still achievable within these areas.
- 2.14 Hedgerows have not been included within the update metric for land covered by planning permission 232995. The original application demonstrated a loss of 0.85 hedgerow units which was off-set, in part, by hedgerow creation within the wider application site. Despite this the application was unable to meet a 10% net gain for hedgerow. The amended plans, as submitted under this application do not alter the hedgerow units within this parcel of land. As such they have not been included within this metric. A commitment to deliver the required 1.94 hedgerows’ units to achieve a 20% net gain is covered under planning application 232995.

New Link Road Proposals

- 2.15 The remainder of the redline boundary has been included within a separate metric so that a 20% net gain can be assigned to these habitats separately from those already committed habitats.
- 2.16 A 20% net gain is required for area habitats, hedgerows and watercourses within this boundary.

On-Site Habitat Type and Condition

Target Habitats

- 2.17 Included within the proposed plans are areas of land which will be left to naturally colonise following completion of the track. Given the disturbance of the ground and the proposed lack of management following construction, it has been assumed that the area will become dominated by ruderal vegetation, such as Nettle *Urtica dioica* and Bramble *Rubus fruticosus*.

Target Conditions

- 2.18 Target habitat conditions have been predicted with reference to the relevant Condition Assessment sheet (DEFRA, 2024b), with full details and justifications set out in the separate spreadsheet submitted with the Application.
- 2.19 The Target Conditions are considered to be realistic and achievable and will be delivered and maintained through the implementation of the Habitat Management and Monitoring Plan to be submitted alongside the Biodiversity Gain Plan to discharge the general biodiversity gain planning condition, should consent be granted.

Strategic Significance

- 2.20 The Berkshire Local Nature Recovery Strategy (LNRS) has been reviewed to inform the strategic significance inputs. Unless habitats created contribute to the aspirations of the LNRS, all created habitats have been assigned a 'low' strategic significance.

Coastal Floodplain Grazing Marsh

- 2.21 The Statutory Biodiversity Metric User Guide (DEFRA, 2025b) states that "areas should be recorded and assessed as Floodplain Wetland Mosaic (FWM) if they are: cited within habitat inventories/not currently cited but identified through professional survey." Note, the Metric uses the term "Floodplain Wetland Mosaic and Coastal and Floodplain Grazing Marsh (FWM/CFGFM)" whereas these are separate secondary codes with different definitions under UKHab.
- 2.22 The relevant habitat inventory in this case is Natural England's Priority Habitat Inventory, an open-source data layer which is freely available to download from www.gov.uk and to view on the MAGIC website (<https://magic.defra.gov.uk>). This inventory covers the whole of England, including private land, and in many cases has not been ground-truthed in fine detail.
- 2.23 EPR's field survey work and desktop research (notably with reference to British Geological Survey maps, LiDAR imagery and Google Earth aerial images taken during periods of high flooding) indicates that the area of land designated as CGFM does not meet the criteria for categorisation as FWM/CFGFM according to either of the UKHab definitions or the original UKBAP Priority Habitat Description (available at www.jncc.gov.uk).
- 2.24 However, in line with the User Guide the affected habitat parcels have been entered into the metric as CFGM.

General Limitations of Metrics

- 2.25 As acknowledged in the User Guide (DEFRA, 2024), the Statutory Biodiversity Metric includes several inherent limitations. Extracts are provided below:

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The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.” (Principle 2).

“This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.” (Principle 4)

This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.” (Principle 6)

- 2.26 In relation to Principle 2, protected and valued species are considered in detail as part of the EclA. This also includes avoiding and mitigating impacts and promoting enhancements such as the provision of wildlife boxes, the latter of which should also be taken into account when assessing the overall BNG that can be delivered by the Proposals.

3. SUMMARY OF RESULTS

Introduction

- 3.1 The following should be read with reference to **Maps 1 to 3** and the completed Metric Calculation Tool (particularly the Assessor Comments column) and Condition Assessment spreadsheets submitted separately with the Application.

Description of Baseline

- 3.2 The total number of on-site baseline units is calculated as follows:

Habitat Type	Planning Application 232995	New Link Road Proposals	Whole Site
Area	1.95	16.93	18.88
Hedgerows	N/A	1.94	1.94
Watercourses	N/A	0.02	0.02

- 3.3 The habitat units on the Site can largely be attributed to the areas of land which fall within the CFGM classification, accounting for 11.43 habitat units. The majority of remaining units come from the arable habitats, which whilst relatively low in value cover large portions of the Site.

The BNG Hierarchy

- 3.4 The Proposals were designed with ecological input from an early stage and due consideration has been given to the BNG Hierarchy throughout the masterplanning process.
- 3.5 The BNG Hierarchy, as set out in Article 37A of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended) requires developers to take the following steps in relation to BNG:
- Avoidance of adverse effects to on-site habitats of 'Medium' distinctiveness and above;
 - Insofar as they cannot be avoided, mitigating those effects;
 - Insofar as they cannot be mitigated; compensating for those effects by prioritising in order, where possible:
 - 1) Enhancement of existing on-site habitats;
 - 2) Creation of new on-site habitats;
 - 3) Allocation of registered off-site gains; and finally
 - 4) Purchase of national off-site biodiversity credits.

- 3.6 **Table 3.1** sets out a summary of how the BNG Hierarchy has been applied by the Proposals.

Table 3.1: Application of the BNG Hierarchy

Action	Evidence of application
Impact Avoidance:	Development re-routed to avoid loss of mature tree
Mitigation:	n/a
Compensation:	
Habitat enhancements (on-site)	n/a
Habitat creation (on-site)	New species rich grassland to be provided within the Site boundary. Planting of new high distinctiveness hedgerow
Off-site gains allocated to Application	Habitat enhancement of CFGM along the River Loddon valley to be allocated to the application to provide the required CFGM units. Planting of new very high distinctiveness hedgerow Enhancement of off-site ditches
Purchase of Biodiversity Credits	n/a

Headline Results

- 3.7 As set out in the Metric Calculation Tool submitted with the Application, the Proposals are predicted to deliver the following:

Habitat Type	Consent 232995	New Proposals	Whole Site
Area	+0.40 (+20.64%)	+3.99 (+23.58%)	+4.59 (+24.31%)
Hedgerows	N/A	+0.39 (+20.35%)	+0.39 (+20.35%)
Watercourses	N/A	+0.0 (0%)	+0.0 (0%)

- 3.8 Although no net loss is recorded, watercourses do not achieve the required level of biodiversity net gain.
- 3.9 Whilst a net gain over and above the 20% requirement can be demonstrated for habitat areas and hedgerows, the proposals are not able to meet the trading rules of the metric due to the loss of CFGM and 'very high' distinctiveness hedgerows. As 'high' and 'very high' distinctiveness habitat, the same habitats are required to be delivered to meet the trading rules of the metric regardless of net gain. A total of 11.43 CFGM units are required to meet the trading rules, and 1.34 units of species-rich native hedgerow with trees - associated with bank or ditch.
- 3.10 Habitats within the Site boundary are not considered appropriate to create CFGM, due to the requirements of the habitat and the proposed use of the Site. Instead, enhancement of CFGM habitats within the adjacent River Loddon floodplain will be used to generate the required units. Habitats currently within poor condition will be enhanced to good condition as part of the wider EcoValley proposals.
- 3.11 Habitat area units, hedgerows and watercourses will all be delivered off-site to ensure a 20% net gain is achieved, and all trading rules are met. A breakdown is set out in **Table 3.2**:

Table 3.2: Breakdown of on-site (whole site) and off-site BNG units

	On-site			Off-site			Combined net unit change
	Baseline	Post-intervention	Net change	Baseline	Post-intervention	Net change	
Area habitats	18.88	23.47	+24.31%	10.86	22.30	+105.31%	84.89%
Hedgerows	1.94	2.33	+20.35%	0.00	1.65	N/A	105.37%
Watercourses	0.05	0.05	0.00%	0.02	0.04	+187.96%	72.97%

On-Site Proposals to Deliver Net Gain

Significant on-site Habitat Creation

- 3.12 Significant on-Site habitat creation will be provided through the delivery of species-rich grasslands to be managed in a conservation-led management regime to provide maximum benefits for local biodiversity, including invertebrates, birds and small mammals. The management of these grasslands will enable them to achieve a good condition.

Off-Site Proposals to Deliver Net Gain

- 3.13 The shortfall of units will be made-up off-site, delivered on land owned by the applicant, known as EcoValley.
- 3.14 Extensive habitat creation and enhancement measures are proposed along the length of the River Loddon within the applicants' landholdings. Habitat enhancements will focus on the diversification of the existing herb-poor permanent pastures on the floodplain. The aim is to restore these pastures to the diverse floodplain meadows that they would have been in the past.
- 3.15 Examples of habitats present within the EcoValley are included within the Statutory Condition Assessment sheets and Target Condition Assessment sheets to demonstrate that the proposals are realistic and achievable. It is anticipated that both habitat and watercourse units will be delivered in EcoValley.
- 3.16 The hedgerow proposed to be delivered will be delivered within University landholdings.

4. PROPOSALS FOR DELIVERY AND MONITORING

Delivery

On-Site

- 4.1 A Habitat Management and Monitoring Plan (HMMP), to be conditioned should the Proposed Development be consented, will set out the details of how the target habitat types and conditions required to achieve the BNG results reported in **Section 3** will be achieved. This will be through a combination of habitat retention and creation measures, followed by ongoing management for a minimum period of 30 years for the 'significant' on-site enhancements described in **Section 3**.

Off-Site

- 4.2 The land where the off-Site habitats, hedgerows and ditch units are to be delivered under a HMMP to be delivered as part of the Loddon Valley Garden Village application.

Monitoring

On-Site

- 4.3 The successful establishment of newly created habitats, and progress of all habitats towards their post-development Target Conditions, will need to be regularly monitored to ensure that the predicted BNG will be realised on the ground. The HMMP, to be conditioned should the Proposed Development be consented, will set out details of the proposed monitoring actions and frequency.

Off-Site

- 4.4 The off-Site habitats will be delivered under a HMMP associated with the Loddon Garden Village strategic allocation, which will include ongoing management and monitoring for a minimum period of 30 years.

Conclusion

- 4.5 This Technical Report has set out the methodology and results of the Statutory Biodiversity Metric calculations completed for the Proposals, which predict a net gain in +4.59 habitat units (24.611%) and 0.39 hedgerow units (20.35%).
- 4.6 Once trading rules have been met, this increases to a net gain of +16.03 units (84.89%), +2.04 hedgerow units (+105.37%) and +0.04 watercourse units (+72.97%).
- 4.7 Net gains will be delivered through a combination of on-site habitat creation and the delivery of off-site habitat enhancements.
- 4.8 Should planning consent be granted, full details of the arrangements for the delivery of minimum 10% BNG will be set out in a Biodiversity Gain Plan and final Habitat Management and Monitoring Plan and submitted to Wokingham Borough Council for approval.

- 4.9 It is therefore concluded that the Proposals as envisaged would comply with the statutory minimum requirements for 10% biodiversity net gain as a condition of planning permission in England under the Environment Act 2021 and Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended), as well as with the NPPF and local planning policy.

5. REFERENCES

- The British Standards Institution (BSI) (2021). *BS 8683:2021 Process for designing and implementing Biodiversity Net Gain – Specification*. British Standards Limited, 2021.
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- Ministry of Housing, Communities and Local Government (MHCLG) (2024). *National Planning Policy Framework*.
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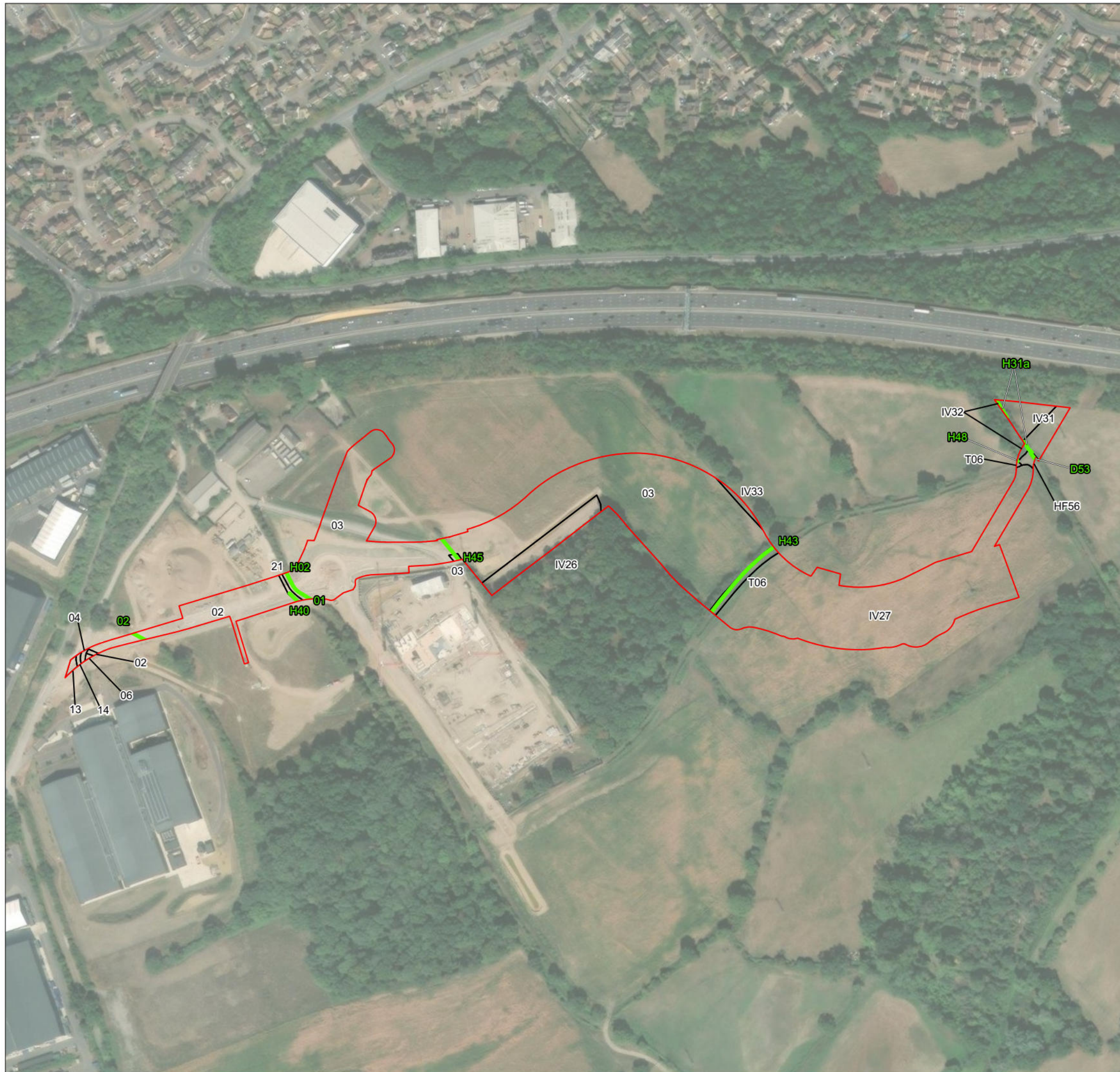


Figure 1 Parcel IDs

KEY

- Site boundary
- Linear feature
- Habitat parcel outline

SCALE: 1:3,500 at A3

0 50 100 150 200 Metres



CLIENT: University of Reading

PROJECT: RBGK Access Road

DATE: 04 March 2026

Y:\London Garden Village, Stratfield 2.0\GIS\Shape Files\AccessRoad\Figure1_ParcelID_P2342_4618_040326.aprx

Aerial Image: Microsoft, Vantor

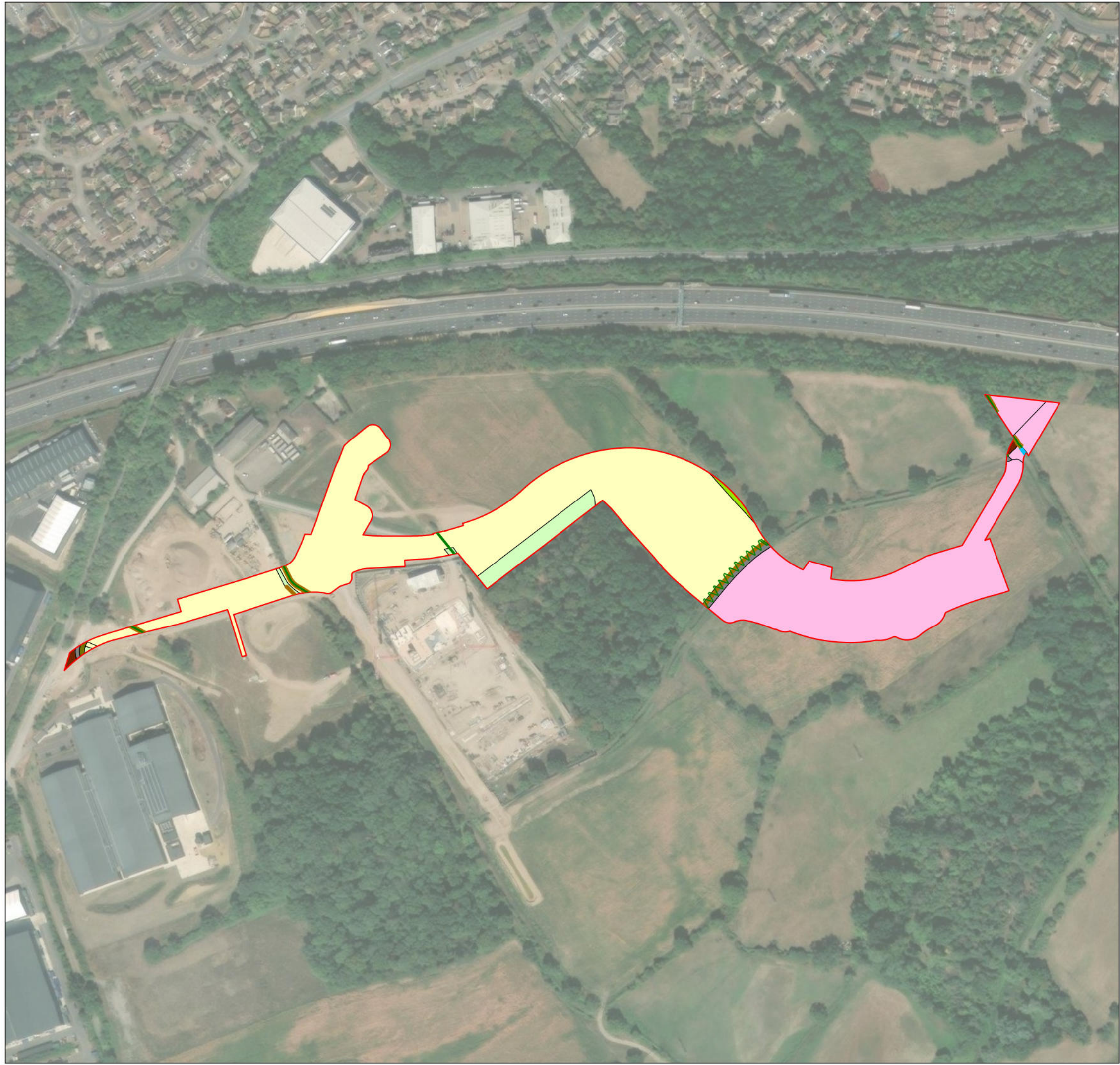


Figure 2 Baseline Habitats

- KEY
- Site boundary
 - Species-rich native hedgerow with trees - associated with bank or ditch
 - Native hedgerow with trees - associated with bank or ditch
 - Native hedgerow with trees
 - Native hedgerow
 - Ditches
 - Cereal crops
 - Floodplain wetland mosaic and CFGM
 - Modified grassland
 - Other neutral grassland
 - Bramble scrub
 - Mixed scrub
 - Developed land; sealed surface

SCALE: 1:3,500 at A3

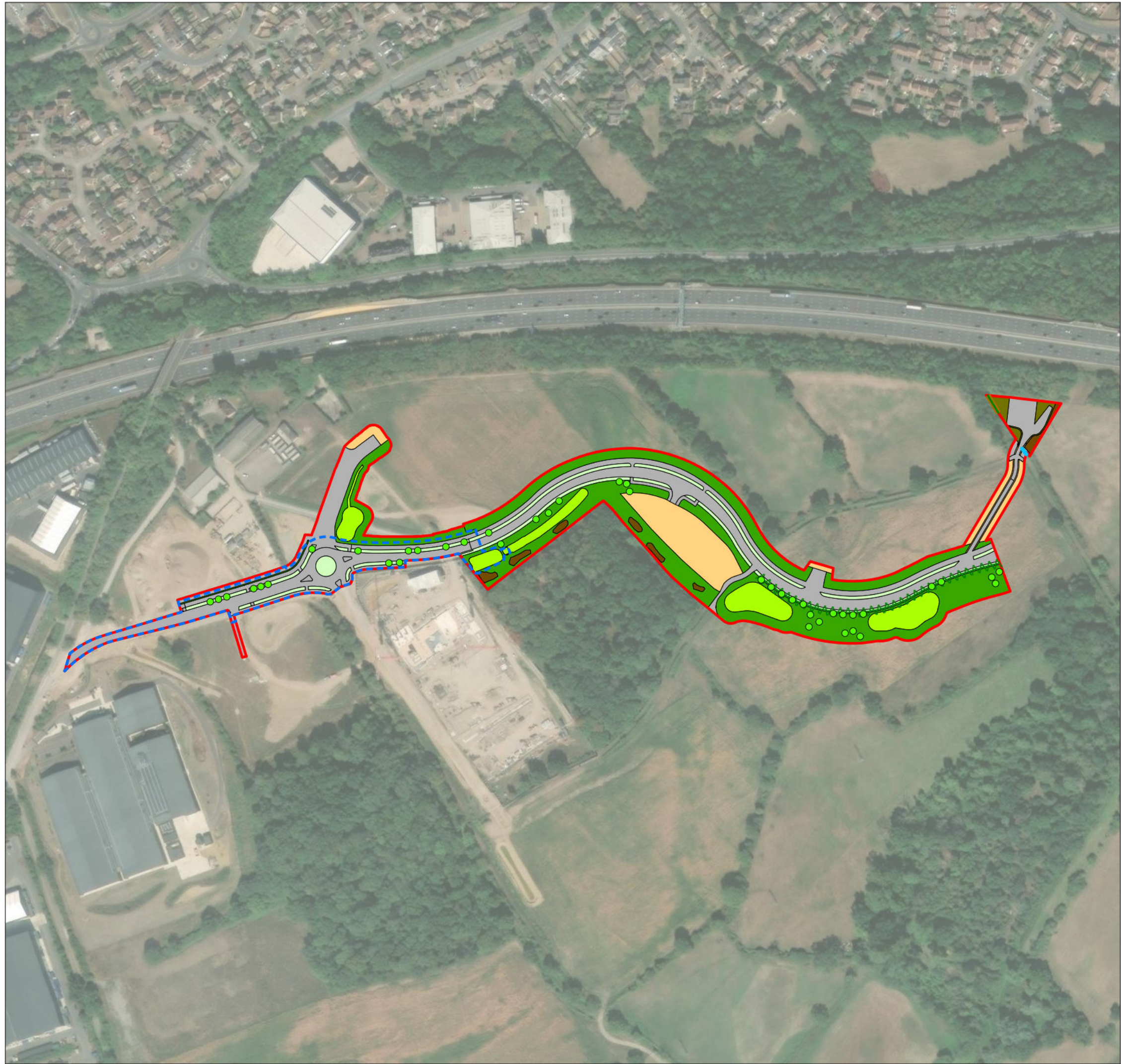
0 50 100 150 200 Metres



CLIENT: University of Reading

PROJECT: RBGK Access Road

DATE: 10 March 2026



MAP 3 Post Development Habitats

- KEY
- Site boundary
 - Application 232995 boundary
 - Retained
 - Native hedgerow with trees - associated with bank or ditch
 - Ditches
 - Created
 - Tree
 - Species-rich hedgerow with trees
 - Developed land; sealed surface
 - Mixed scrub
 - PL03 Other neutral grassland
 - PL06 Modified grassland
 - PL07 Other neutral grassland
 - PL08 Other neutral grassland
 - Ruderal vegetation

SCALE: 1:3,500 at A3

0 50 100 150 200 Metres



CLIENT: University of Reading

PROJECT: RBGK Access Road

DATE: 10 March 2026