

Biodiversity Net Gain Report

Land at High Street, Winterbourne Bassett,
Wiltshire, SN4 9QB

Client	Catherine Pullan
Reference	2025-140
Version	1
Date	05/01/2026

Quality Assurance

	Name	Position	Date	Signature
Surveyor and Survey Date	David Withington BSc, ACIEEM	Senior Ecologist	10/11/2025	
Authored	David Withington	Senior Ecologist	15/12/2025	
Reviewed	Robert Dunn BSc, MSc, ACIEEM	Director/ Senior Ecologist	05/01/2026	
Approved	Robert Dunn	Director/ Senior Ecologist	05/01/2026	

Document History

Version	Date Issued	Revision
1	05/01/2026	Issued to the client.

Disclaimer

This document has been prepared solely for use by the client. Smart Ecology accepts no responsibility or liability for any use of this document by third parties or for purposes for which it was not originally commissioned.

Smart Ecology cannot be held liable for any information provided by third parties which is referenced within this document.

The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Copyright

Smart Ecology Ltd. has prepared this report for use by Catherine Pullan. © This report is the copyright of Smart Ecology Ltd.



Non-Technical Summary

Purpose of Document	Smart Ecology was commissioned by Catherine Pullan to produce a Biodiversity Net Gain (BNG) Report to inform a full planning application to Wiltshire Council for the erection of two residential properties on the site.
Methodology	The statutory biodiversity metric tool was used to calculate the baseline and post-development biodiversity value of the site.
Results	The proposed development would result in a 58.48 % decrease in habitat units (loss of 0.18 habitat units) and a 100 % decrease in hedgerow units (loss of 0.30 hedgerow units). Trading rules would not be satisfied.
Conclusions	The proposed development would achieve BNG by the purchase of 0.21 off-site habitat units and 0.33 off-site hedgerow units, or statutory credits as a last resort.



Contents

1	Introduction.....	1
1.1	Background.....	1
1.2	Aims.....	1
2	Methodology.....	2
2.1	Biodiversity Metric Calculation Tool	2
2.2	Measurement of Habitat Areas.....	2
2.3	Condition Assessment.....	2
2.4	Strategic Significance.....	3
2.5	Limitations.....	3
3	Baseline Conditions	4
4	Proposed Design.....	5
4.1	Biodiversity Gain Hierarchy and Mitigation Hierarchy.....	5
4.2	Proposed Habitats	5
4.3	Condition Assessment.....	5
4.4	Strategic Significance.....	6
5	BNG Metric Results.....	7
6	Conclusions.....	8
7	References.....	9
8	Figures	10
	Appendix 1 – Proposed Site Plan.....	11
	Appendix 2 – Condition Assessments.....	12



1 Introduction

1.1 Background

- 1.1.1 Smart Ecology was commissioned by Catherine Pullan (the client) to produce a Biodiversity Net Gain (BNG) Report for Land at High Street, Winterbourne Bassett, Wiltshire, SN4 9QB (central national grid reference SU 00942 75094).
- 1.1.2 The purpose of the appraisal was to inform a full planning application to Wiltshire Council for the construction of two houses on the site. Refer to Appendix 1 for the proposed plans.
- 1.1.3 The client has confirmed that they believe that planning permission, if granted, would be subject to the biodiversity gain condition as the proposed development is not exempt from mandatory BNG.
- 1.1.4 This BNG Report has been prepared with reference to the guidance provided in the statutory biodiversity metric user guide (Defra, 2025), the good practice principles set out in Biodiversity Net Gain: Good practice principles for development (Baker et al., 2019), and Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021).

1.2 Aims

- 1.2.1 The purpose of this BNG Report is to:
 - Provide an assessment of the pre-development biodiversity value of the site.
 - Provide information on how the mitigation hierarchy and biodiversity gain hierarchy have been followed.
 - Provide an assessment of the post-development biodiversity value of the site and details of how the proposed development will achieve BNG.



2 Methodology

2.1 Biodiversity Metric Calculation Tool

2.1.1 The statutory biodiversity metric calculation tool (version 1.0.4 issued 3rd July 2025) was used to calculate the on-site baseline and post-development habitat and hedgerow units.

2.2 Measurement of Habitat Areas

2.2.1 Existing habitat areas and lengths were measured from the Baseline Habitats Plan (Figure 1, Section 8) in QGIS.

2.2.2 The habitats that are proposed to be created post-development were identified from the Proposed Site Plan SK103, dated 24/10/25 (see Appendix 1). Habitat areas and lengths were measured from the Proposed Habitats Plan (Figure 2, Section 8) in QGIS and using calculations provided within the proposed site plan.

2.3 Condition Assessment

2.3.1 Condition assessments of on-site habitats were carried out by David Withington on the 10th of November 2025. See Table 2-1 for details of the surveyor's experience and qualifications.

Table 2-1: Surveyor information

Surveyor	Qualifications/Experience
David Withington BSc, ACIEEM	Seven years' experience in ecological consultancy. Postgraduate diploma in environmental policy and management (University of Gloucestershire – merit).

2.3.2 See Table 2-2 for details of weather conditions during the site visit.

Table 2-2: Survey weather conditions

Variable	Weather Conditions
Cloud cover	100 %
Temperature	10°C
Wind	Light breeze (BWS 2)
Precipitation	Light rain

2.3.3 The condition of on-site habitats was assessed using the statutory biodiversity metric condition assessments.



2.4 Strategic Significance

- 2.4.1 Strategic significance is the significance of a habitat based on its location and habitat type. The Wiltshire Local Nature Recovery Strategy¹ was reviewed to inform the strategic significance assessment. See Table 2-3 for strategic significance categories and descriptions.

Table 2-3: Strategic significance categories and descriptions

Category	Detail
High	This category can only be applied when: • The location of the habitat parcel has been mapped in the Local Habitat Map as an area where a potential measure has been proposed to help deliver the priorities of that LNRS; and • The proposed intervention is consistent with the mapped potential measure in the LNRS for the habitat parcel.
Low	Where the definitions for high strategic significance are not met. Even if your project is in an area mapped with a potential measure, if the proposed intervention is not consistent with a potential measure proposed by the LNRS for that location, you should record strategic significance as low.

2.5 Limitations

- 2.5.1 No limitations were identified.

¹ <https://www.wiltshire.gov.uk/article/8288/Wiltshire-and-Swindon-Local-Nature-Recovery-Strategy> (accessed November 2025).



3 Baseline Conditions

- 3.1.1 A Baseline Habitat Plan is provided in Figure 1, Section 8. A summary of existing on-site habitat areas, hedgerow lengths, and condition assessments is provided in Table 3-1.
- 3.1.2 It is believed that no activities have been carried out on-site before November 2025 that have resulted in the loss of on-site biodiversity value (i.e. degradation).
- 3.1.3 The completed condition assessment sheets for on-site habitats are provided in Appendix 2.
- 3.1.4 No irreplaceable habitats would be impacted by the proposed development.

Table 3-1: On-site habitat areas and hedgerow lengths

Habitat Type	Area (m ²)	Length (m)	Condition
Bramble scrub	10	-	N/A
Individual tree	41	-	Moderate
Modified grassland	1322	-	Poor
Native hedgerow	-	37	Moderate

- 3.1.5 The ditch adjacent to the eastern site boundary is considered likely to contain water for less than four months of the year so is excluded from the BNG assessment. This is based on the lack of aquatic vegetation within the ditch and the abundance of grasses, and despite there being a prolonged period of heavy rain prior to the site visit there was only a small amount of water within the ditch. The source of water for the ditch is surface water from the adjacent road fed by pipework and so it would only sporadically contain water.



4 Proposed Design

4.1 Biodiversity Gain Hierarchy and Mitigation Hierarchy

- 4.1.1 As the proposals are for the erection of new dwellings and the creation of residential gardens, it is not possible to enhance retained habitats or create new on-site habitat other than vegetated garden and developed land, sealed surface, in accordance with the guidance provided in the statutory biodiversity metric user guide (Defra, 2025), and therefore off-site biodiversity units or statutory credits must be purchased.

4.2 Proposed Habitats

- 4.2.1 The proposed BNG is based on the Proposed Site Plan (Appendix 1), which shows:
- Development of two residential properties with private gardens.
 - The hedgerow and tree would be incorporated into private gardens and are therefore shown as 'lost' in the BNG assessment.
- 4.2.2 The Proposed Habitats Plan is provided in Figure 2, Section 8.
- 4.2.3 Table 4-1 provides a summary of habitat areas and hedgerow lengths which would be lost, retained, enhanced, or created.
- 4.2.4 It is considered that the proposed on-site habitat creation would not count as a significant enhancement as only habitats of low distinctiveness value are proposed which do not normally require maintenance provisions.

Table 4-1: Habitats which would be lost, retained, and created

Habitat Type	Lost, Retained, Enhanced or Created	Area (m ²)	Length (m)
Bramble scrub	Lost	10	-
Developed land; sealed surface	Created	684	-
Individual tree	Lost	41	-
Modified grassland	Lost	1322	-
Native hedgerow	Lost	-	37
Vegetated garden	Created	648	-

^a Hedgerow is not proposed to be removed, but is included as lost for the BNG assessment as it would be incorporated into private gardens.

4.3 Condition Assessment

- 4.3.1 The habitats which are proposed do not have condition assessment criteria applied to them.



4.4 Strategic Significance

- 4.4.1 The strategic significance assigned to proposed habitats and justification for the choice of significance are provided in Table 4-2.

Table 4-2: Strategic significance for proposed habitats

Habitat Type	Strategic Significance
Developed land, sealed surface	Low – does not meet the definition for high strategic significance.
Vegetated garden	Low – does not meet the definition for high strategic significance.



5 BNG Metric Results

- 5.1.1 The pre-development biodiversity value of on-site habitats was calculated as 0.30 units and the post-development value was 0.13 units. The pre-development biodiversity value of the on-site hedgerow was calculated as 0.30 units and the post-development value was 0 units.
- 5.1.2 The proposed development would result in a 58.48 % decrease in habitat units (loss of 0.18 habitat units) and a 100 % decrease in hedgerow units (loss of 0.30 hedgerow units). Trading rules would not be satisfied. See Figure 5-1 for the headline results.
- 5.1.3 As the proposals are for the erection of new dwellings with gardens, it is not possible to enhance retained habitats, or create new on-site habitat other than vegetated garden and developed land, sealed surface. Therefore, off-site biodiversity units (or statutory credits as a last resort) must be purchased. To achieve BNG, 0.21 off-site habitat units and 0.33 off-site hedgerow units are required.

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-0.18		
	Hedgerow units	-0.30		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	-58.48%		
	Hedgerow units	-100.00%		
	Watercourse units	0.00%		
Trading rules satisfied?		No - Check Trading Summaries ▲		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Area habitat units	10.00%	0.30	0.33	0.21
Hedgerow units	10.00%	0.30	0.33	0.33
Watercourse units	10.00%	0.00	0.00	0.00

Figure 5-1: BNG Headline Results



6 Conclusions

- 6.1.1 The proposed development would achieve BNG by the purchase of 0.21 off-site habitat units and 0.33 off-site hedgerow units, or statutory credits as a last resort.
- 6.1.2 A Biodiversity Gain plan must be provided to the Local Planning Authority after planning permission has been obtained.



7 References

Baker, J., Hoskin, R. & Butterworth, T. (2019). *Biodiversity Net Gain – good practice principles for development*. Ciria, London.

CIEEM (2021). *Biodiversity Net Gain Report and Audit Templates*. Chartered Institute of Ecology and Environmental Management, Winchester, UK.

Defra (2025). *Statutory Biodiversity Metric User Guide*. Department for Environment, Food and Rural Affairs, London.

Wiltshire Council and Swindon Borough Council (2025). *Local Nature Recovery Strategy for Wiltshire and Swindon* available at <https://www.wiltshire.gov.uk/media/18289/Local-Nature-Recovery-Strategy-for-Wiltshire-and-Swindon> (accessed November 2025).



8 Figures

Figure 1 – Baseline Habitats Plan

Figure 2 – Proposed Habitats Plan





**Figure 1 -
Baseline Habitats Plan**

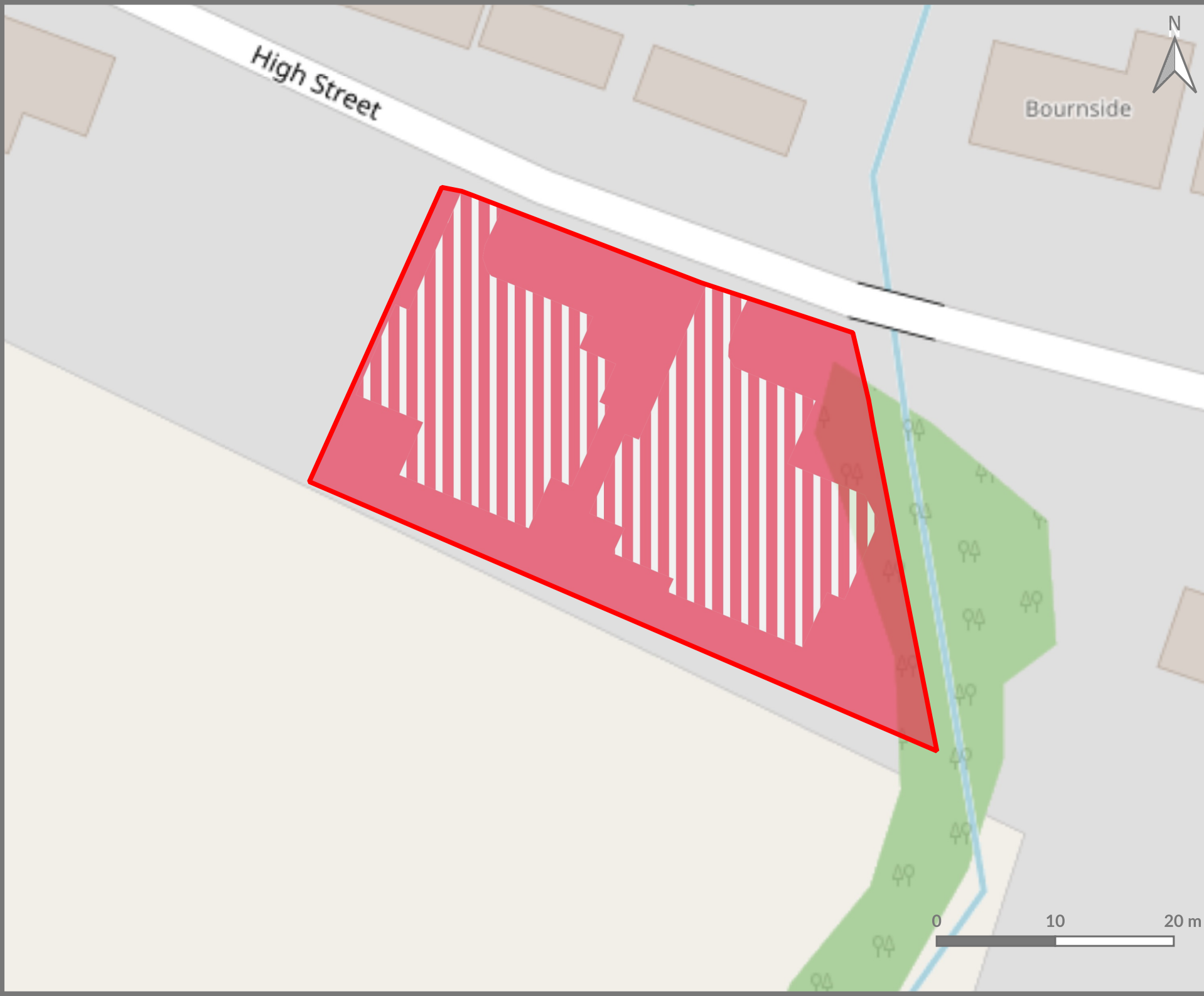
Land at High Street,
Winterbourne Bassett,
Wiltshire,
SN4 9QB

-  Site boundary
-  Existing rural tree (small)
-  Species-rich native hedgerow (0.037km)
-  Bramble scrub (0.001 ha)
-  Modified grassland (0.13 ha)

Base map and data from
OpenStreetMap and OpenStreetMap
Foundation (CC-BY-SA). ©
<https://www.openstreetmap.org> and
contributors.

Date:	17/12/2025
Drawn by:	David Withington
Checked by:	Robert Dunn

Smart Ecology\Projects\2025\
2025-140\GIS



**Figure 2 -
Proposed Habitats
Plan**

Land at High Street,
Winterbourne Bassett,
Wiltshire,
SN4 9QB

-  Site boundary
-  Developed land;
sealed surface (0.07ha)
-  Vegetated Garden
(0.06ha)

Base map and data from
OpenStreetMap and OpenStreetMap
Foundation (CC-BY-SA). ©
<https://www.openstreetmap.org> and
contributors.

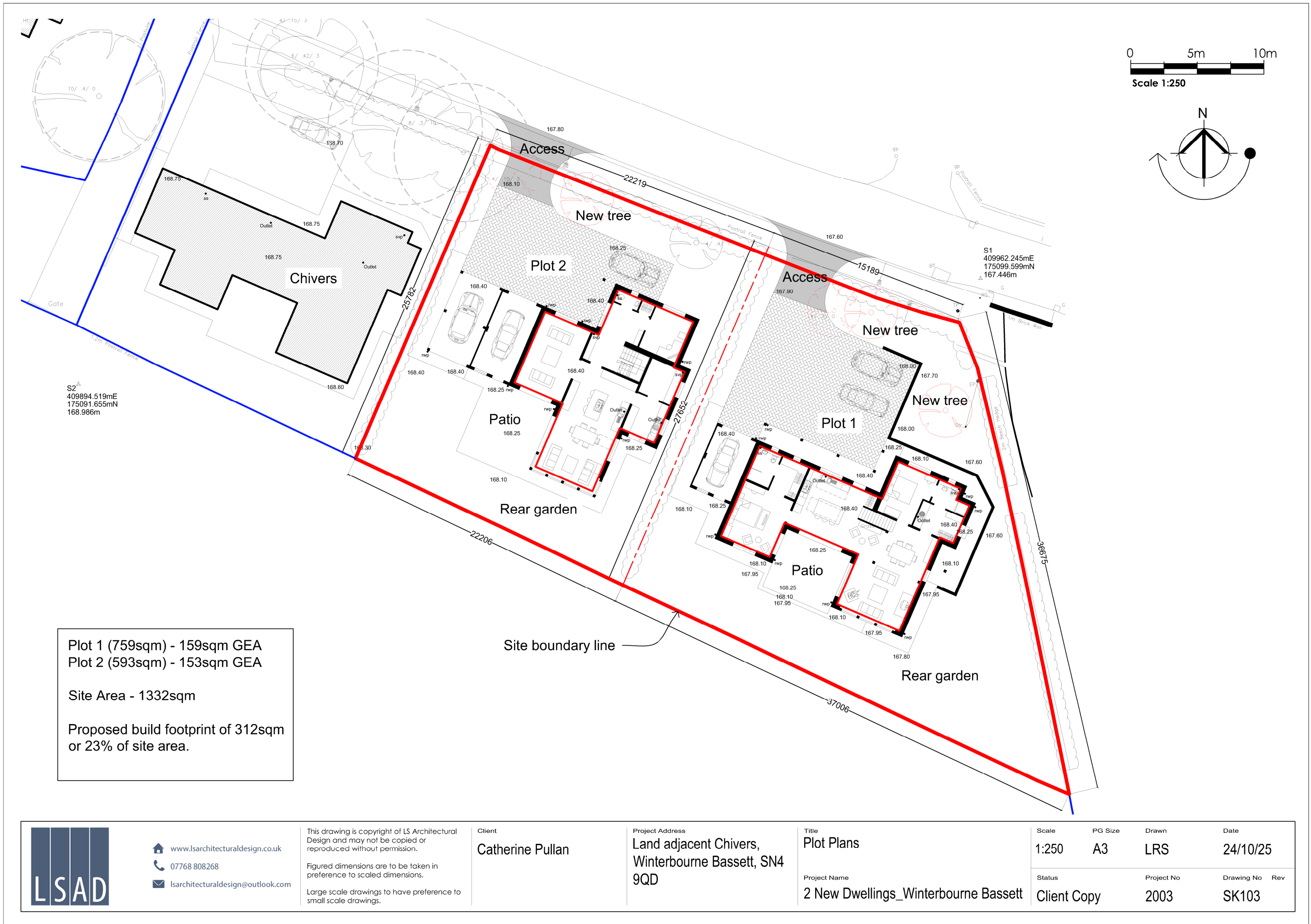
Date:	17/12/2025
Drawn by:	David Withington
Checked by:	Robert Dunn

Smart Ecology\Projects\2025\
2025-140\GIS

Appendix 1 – Proposed Site Plan

Page intentionally blank





Appendix 2 – Condition Assessments

Table A2-1: Condition Assessment – modified grassland

Habitat Type		g4 Modified Grassland
Condition Assessment Criteria		Pass/Fail
1	There are 6–8 species per m ² including at least two forbs.	Fail
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Pass
3	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble may be present).	Pass
4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Pass
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Fail
6	Cover of bracken is less than 20%.	Pass
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Pass
Condition Assessment Result		Condition Assessment Score
Passes 6 or 7 of 7 criteria including passing essential criterion 1		Good
Passes 4 or 5 of 7 criteria including passing essential criterion 1		Moderate
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria (but failing criterion 1)		Poor

Quadrat data (modified grassland)

Quadrat	Species present in 1 m ²
1	Cock's foot, tall fescue.
2	Cock's foot, rye-grass species, creeping buttercup.
3	Cock's foot, tall fescue, common nettle.
4	Cock's foot, rye-grass species, tall fescue, common nettle.



Table A2-2: Condition Assessment – hedgerow

Habitat Type	h2a5 Species-Rich Native Hedgerow
Condition Criteria	Pass/Fail
A1 Height >1.5 m average	Pass
A2 Width >1.5 m average	Fail
B1. Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	Fail
B2. Gaps make up <10% of total length and no canopy gaps >5 m	Pass
C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length on at least one side	Pass
C2. Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	Fail
D1. >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Pass
D2. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Pass

Condition Assessment Categories		Metric Score
Category	Category Requirements	
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group = Good condition.	3
Moderate	No more than 5 failures in total; AND <u>Does not fail both attributes</u> in more than one functional group.	2
Poor	Fails a total of more than 5 attributes; OR <u>Fails both attributes</u> in more than one functional group.	1
Score Achieved		2 (moderate)



Table A2-3: Condition Assessment – tree

Habitat type		Individual Tree
Condition Assessment Criteria		Criterion passed
A	The tree is a native species (or at least 70% within the block are native species).	Pass
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).	Pass
C	The tree is mature (or more than 50% within the block are mature).	Fail
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.	Pass
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass
Number of criteria passed		4
Condition Assessment Result	Condition Assessment Score	Score Achieved
Passes 5 or 6 criteria	Good	
Passes 3 or 4 criteria	Moderate	✓
Passes 2 or fewer criteria	Poor	

