AMENDED

AEWC Ltd

Animal Ecology & Wildlife Consultants

Biodiversity Net Gain Assessment

Land adjoining to Hawthorns

Maidstone Road
Borden
Kent
ME9 7QA

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24-027
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Summary

- AEWC Ltd were commissioned by Wyndham Property Group to undertake a Biodiversity Net Gain Assessment at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA at grid reference TQ 85987 62692 to help inform the proposed development of the site.

- The estimated existing and post-development biodiversity value of the habitats on the site is calculated using the Defra Statutory Biodiversity Metric Calculation Tool.

- The development includes construction of three residential dwellings with associated private gardens, landscaping, and an access road. This will involve the removal of a small section of woodland for the new access road, much of the existing modified grassland on the site, and all traditional orchard, mixed scrub, and tall forbs. The non-native hedge and individual tree will also be removed.

- Ecological enhancements built into the development include the enhancement of the boundary woodland belt, enhancement of the retained modified grassland in the south to wildflower grassland with the addition of 6 fruit trees to create traditional orchard, creation of new mixed scrub and modified grassland, planting of three new individual trees, and creation of two species-rich native hedgerows. In terms of the BNG metric, these are not sufficient to offset the loss of the existing habitat units on the site but are sufficient to achieve net gain in hedgerow units.

- **The headline results show that there is an estimated negative BNG (i.e. loss) of 45.36% for habitat units**.

- **The headline results show that there is an estimated positive BNG (i.e. gain) of 2,310.07% for hedgerow units.**

- **There is currently a deficit of 1.27 habitat units to reach a 10% gain. If an acceptable gain is not possible to achieve on-site, off-site units or credits may be purchased to offset the losses with agreement from the local planning authority.**

1. Introduction

1.1 AEWC Ltd were commissioned by Wyndham Property Group to undertake a Biodiversity Net Gain Assessment at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA to help inform the proposed development of the site.

1.2 The purpose of this report is to give an estimate of the BNG units that may be achieved under the current development proposals, where a BNG of +10% is not achieved suggestions for additional ecological enhancement are provided.

2. Background

2.1 AEWC Ltd conducted a Preliminary Ecological Appraisal at the site in May 2024.

2.2 The proposed development site is located at Land adjoining to Hawthorns, Maidstone Road, Borden, Kent, ME9 7QA at central grid reference TQ 85987 62692. The site is located in a semi-rural area to the south of Maidstone Road, 110m to the southeast of the A249 and 450m to the north of the M2. The surrounding landscape predominantly comprises a combination of residential properties, agricultural land, a network of major roads, and a golf course. See Figure 1.

FIGURE 1: SHOWING THE SITE LOCATION

2.3 The proposed development site is approximately 0.4ha and comprises predominantly a field of modified grassland with scattered individual trees. Due to the presence of

five fruit or nut trees, a northern portion of the site qualifies as traditional orchard. There is a narrow belt of lowland mixed deciduous woodland along the northwestern, southern, and southeastern boundaries. Within the site are also small areas of developed land; sealed surface, artificial unvegetated, unsealed surface, mixed scrub, and tall forbs, as well as a short length of non-native hedge. See Figures 2 and 4 and Photos 1 - 4.

FIGURE 2: AERIAL VIEW OF THE SITE SHOWING THE BOUNDARY

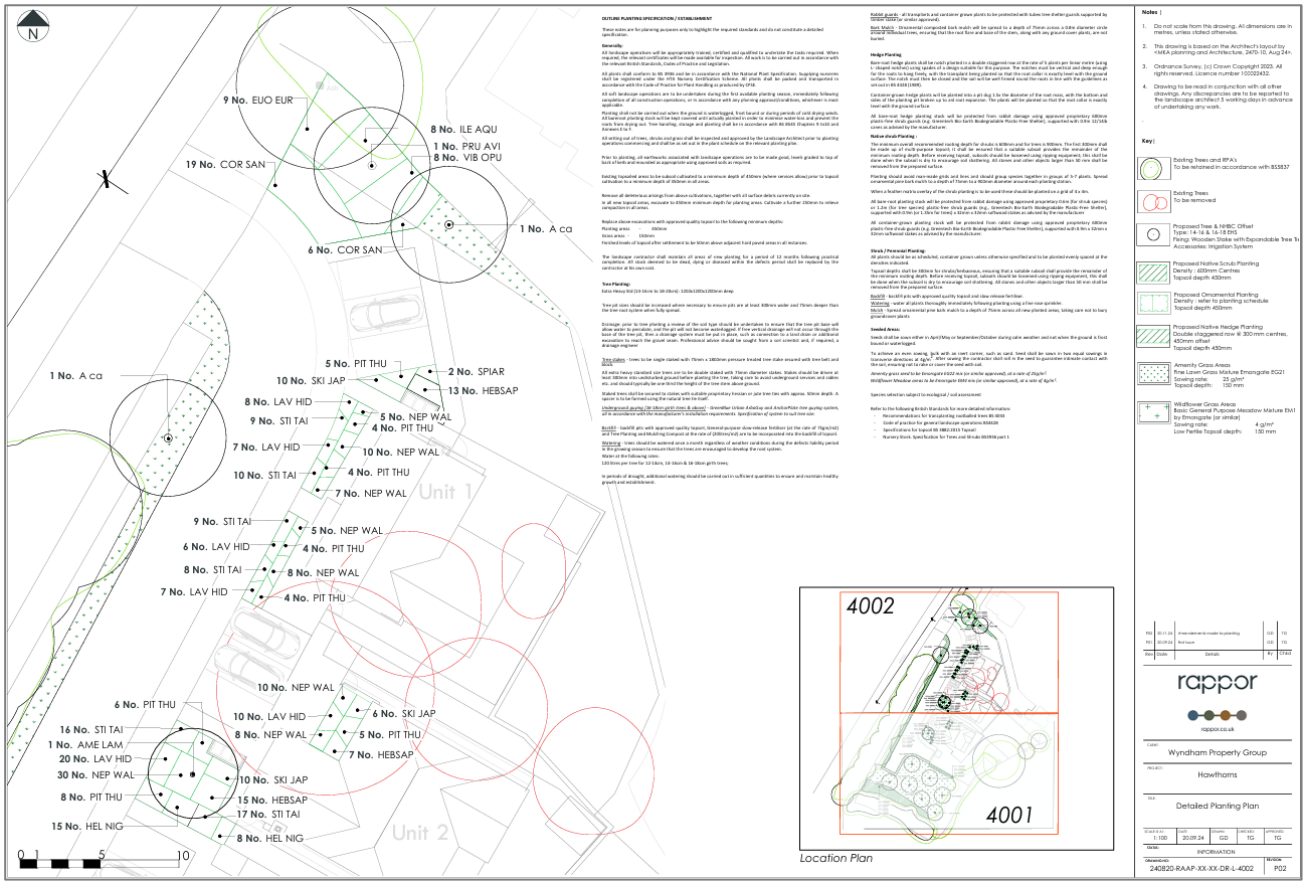
Photo 1: Modified grassland covering most of the site.

Photo 2: Scattered trees within the north of site.

Photo 3: Woodland at the site boundaries.

Photo 4: Tall forbs in the east of the site.

2.4 The proposed development consists of the construction of three residential dwellings with associated private gardens, landscaping, and an access road. This will involve the removal of a small section of woodland for the new access road, much of the existing modified grassland on the site, and all traditional orchard, mixed scrub, and tall forbs. The non-native hedge and individual tree will also be removed. See Figure 3.



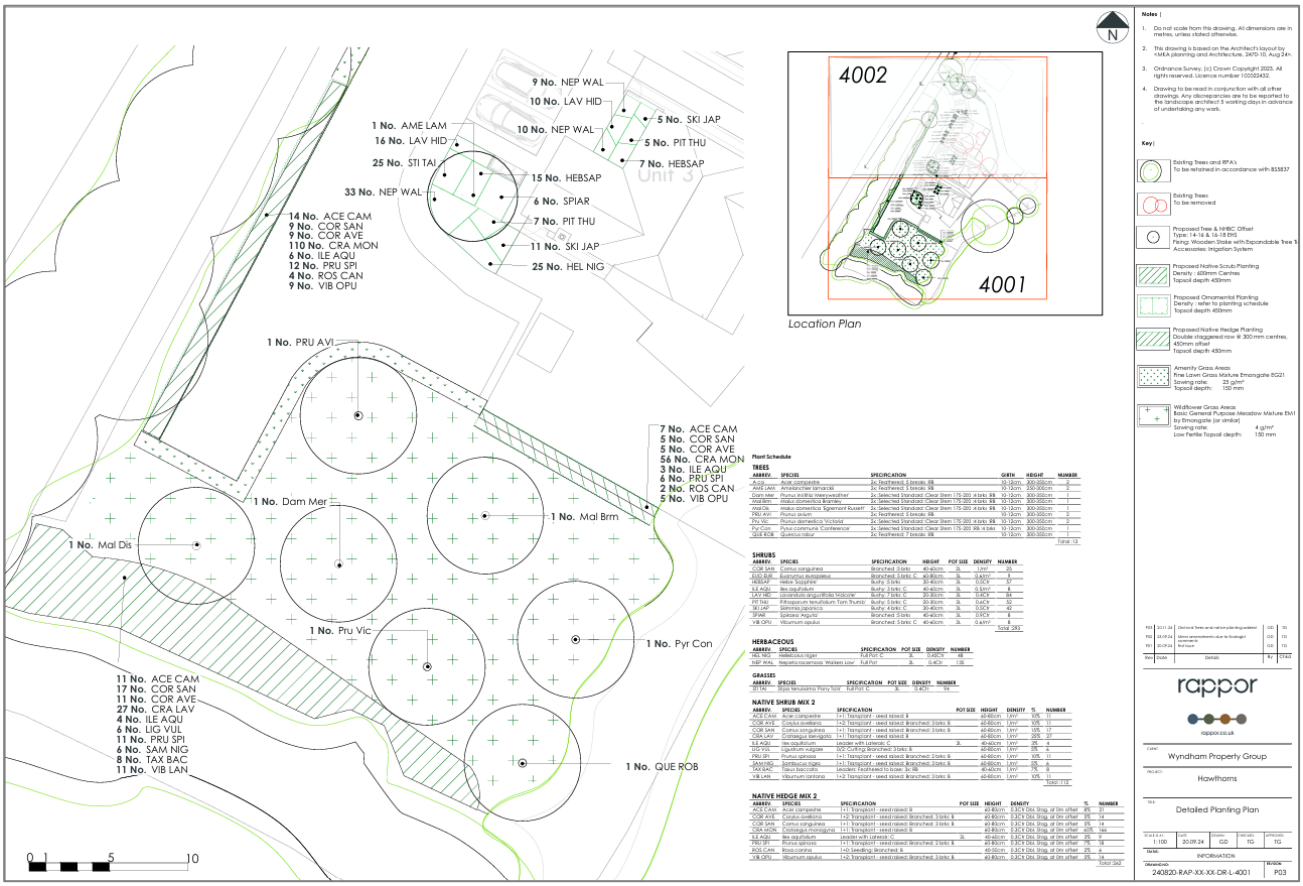


FIGURE 3: PROPOSED WORKS

3. Method and Constraints

3.1 The estimated existing and post-development biodiversity value of the habitats on the site is calculated using the Defra Statutory Biodiversity Metric Calculation Tool. Habitat condition was assessed using the Statutory Biodiversity Metric – Technical Annex 1 Condition Assessment Sheets.

3.2 The following assumptions have been made and therefore associated constraints should be considered when looking at BNG unit values obtained:

- The potential for protected and notable species is not covered within the scope of this report;
- Existing habitats on-site are taken from those identified within the survey undertaken in May 2024;
- Post-development habitats have been inferred from those given with the Proposed Site Layout as shown in Figure 3;
- All areas and lengths are approximate;
- Areas in hectares and length in km are both given to four decimal places, therefore rounding errors and occasional adjustments to values, to ensure consistency of total areas in existing and post-development habitat size, are unavoidable;
- Habitat quality has been estimated in some instances (i.e. for post-development habitats);
- Tree areas are calculated using the tree helper tool within the metric. Within amenity gardens only medium and large trees are included within mapping and calculations; and

- The area of planted trees in the open space was estimated using small trees in the tree helper tool.

3.3 Given the above constraints the values for BNG obtained should be considered to be an **estimate** only.

3.4 Calculations may need to be adjusted in future should the BNG metrics or requirements be revised.

4. Habitat Data

4.1 The existing and post-development habitats and their areas and lengths used for this assessment are illustrated in Figures 4 and 5 respectively.

FIGURE 4: EXISTING ON SITE HABITATS

FIGURE 5: POST-DEVELOPMENT ON SITE HABITATS

5. Results

5.1 The headline results using the above habitats and calculations are given below (refer to the metric for full details).

Table 1: Headline estimated BNG values

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-1.04
	Hedgerow units	0.23
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-45.36%
	Hedgerow units	2310.07%
	Watercourse units	0.00%
Trading rules satisfied?	No - Check Trading Summaries ▲	

6. Conclusions & Recommendations

6.1 The development includes the removal of a small section of woodland for the new access road, much of the existing modified grassland on the site, and all traditional orchard, mixed scrub, and tall forbs. The non-native hedge and individual tree will also be removed.

6.2 Ecological enhancements built into the development design include the enhancement of the boundary woodland belt, enhancement of the retained modified grassland in the south to wildflower grassland with the addition of 6 fruit trees to create traditional orchard, creation of new mixed scrub and modified grassland, planting of three new individual trees, and creation of two species-rich native hedgerows. In terms of the BNG metric, these are not sufficient to offset the loss of the existing habitat units on the site but are sufficient to achieve net gain in hedgerow units.

6.3 **The headline results show that there is an estimated negative BNG (i.e. loss) of 45.36% for habitat units**.

6.4 **The headline results show that there is an estimated positive BNG (i.e. gain) of 2,310.07% for hedgerow units**.

6.5 Trading rules have not been satisfied due to the deficit of low and high distinctiveness habitat units.

6.6 The BNG value achievable on the site can be increased by reducing the built footprint and / or increasing the area or quality of the habitats post-development. Some examples include:

- Including green roofs
- Including green walls or vertical planting
- Replacing areas of hard standing with planted surface
- Tree planting in communal areas

6.7 In England BNG is becoming mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). This came into force in February 2024 for major developments and April 2024 for minor developments. Under the legislation developers must deliver a biodiversity net gain of 10%.

6.8 There is currently a deficit of 1.27 habitat units to reach a 10% gain. If an acceptable gain is not possible to achieve on-site, off-site units or credits may be purchased to offset the losses with agreement from the local planning authority.

Table 2: Unit deficit

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	2.30	2.53	1.27
Hedgerow units	10.00%	0.01	0.01	0.00
Watercourse units	10.00%	0.00	0.00	0.00

7. Wildlife Enhancements

Bats and Birds

7.1 To enhance the site for bats and birds known to be present within the local area it is recommended that at least three bat boxes and three bird boxes be installed within the site. Boxes could be installed on existing retained trees within the site and/or integrated into the new development.

7.2 Ideally bat boxes would be woodcrete or similar hard-wearing material (rather than the less durable wooden boxes) and should be installed at least 3m above the ground (where safe installation is possible), sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west facing).

7.3 Example tree-mounted bat boxes are shown below: Schwegler 1FF bat box (below left, suitable for pipistrelle bats *Pipistrellus sp*.), and a Schwegler 2F bat box (below right, suitable for long-eared bats *Plecotus sp.*), or similar bat boxes.

7.4 Example integrated bat boxes are shown below: Integrate Eco Bat Box (below left), Habibat Bat box - Plain for rendering (below centre) and a Schwegler 1WI Summer and Winter bat box (below right) or similar bat boxes.

7.5 Tree-hung bird boxes should comprise a mix of traditional ‘32mm round-holed’ (below left: which are suitable for tits, sparrows, redstarts and nuthatches) and open-fronted boxes (below right: these are suitable for pied wagtails, robins and wrens) and also ideally be woodcrete or similar hard wearing material (rather than the less durable

traditional wooden boxes). Boxes should be installed with an aluminium nail or screw to prevent tree damage between 2m and 4m above ground for round-holed and low down, below 2m, well hidden in vegetation for open-fronted boxes and (unless shaded by buildings or trees) be facing north or east.

7.6 Integrated bird boxes should comprise of swift bricks which are suitable for a range of species (below left), these should be installed at a minimum of 4m above the ground, north or east facing and with open flight access, or sparrow terraces (below centre) which should be installed in line with vegetation such as trees or hedge lines to allow the birds the use of jumping off points and be installed a minimum of 3m above the ground on a north or east elevation. Where suitable overhanging eaves are present house martin cups (below right) may also be suitable.

Reptiles and amphibians

7.7 **To enhance the site for reptiles and amphibians a 'hibernaculum' could be created in a sunny corner of the site.** This will use materials such as logs, inert hardcore, bricks or building rubble to form the body of each hibernaculum, ensuring that materials likely to decompose are not placed beneath bricks or rubble to avoid collapse. Woodchips or soil may be incorporated to fill some of the larger cavities within the structure.

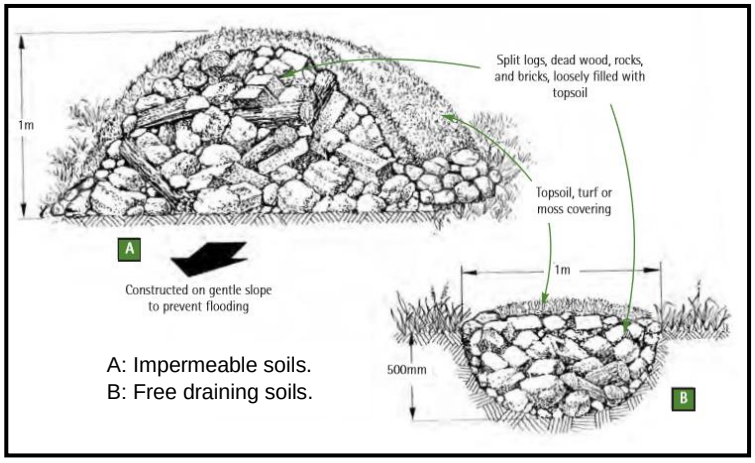
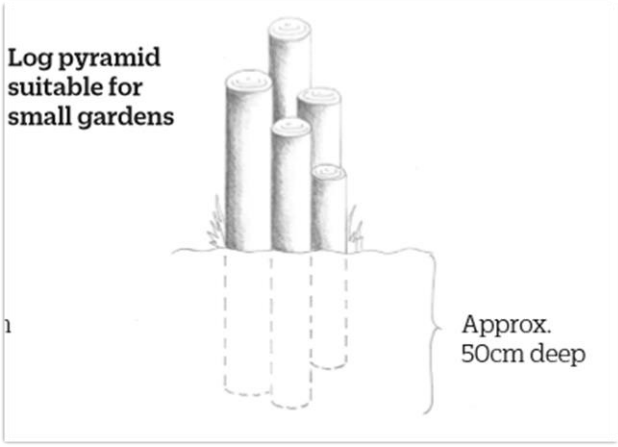


Diagram from Great Crested Newt Conservation Handbook

Stag Beetles

7.8 **A log stack could be created in a discrete corner of the site to provide dead wood habitat features for stag beetle another species.**

7.9 A suitable logpile comprises of a variety of lengths of hard wood at least 5cm in diameter, this should be sighted in partial shade and the wood partially buried to prevent it drying out. See below diagram and picture below from the PTES 'how to build a loggery' factsheet, (*https://ptes.org/get-involved/wildlife-action/help-stag-beetles/*)



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