

A large, abstract green graphic consisting of several overlapping, wavy, curved shapes that resemble stylized leaves or grass blades. These shapes are filled with a lighter green, out-of-focus image of vegetation, creating a layered, organic effect.

Biodiversity Net Gain Assessment

Land at Aranjays, New Barn
Lane

December 2025

Biodiversity Net Gain Assessment

Land at Aranjays, New Barn Lane

03/12/2025

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Contents

1.	Introduction.....	1
2.	Methodology.....	2
3.	Biodiversity Net Gain Assessment.....	5
4.	Discussion	8
5.	Conclusions and Recommendations.....	9
6.	References	10

Appendices

Appendix A – Habitat Map

Appendix B – Post Development Landscape Plan

1. Introduction

Project Background

- 1.1 Phlorum Limited was commissioned by Charlotte Harris to compile a Biodiversity Net Gain Assessment in relation to the proposed development of Land at Aranjays, New Barn Lane (hereafter referred to as "the site"). The site address is Aranjays, New Barn Lane, Henfield BN5 9SJ.
- 1.2 This version (V2) has been produced to reduce the post development habitat units following the recommendations of the local planning officer.

Site Description and Context

- 1.3 The site comprised several buildings (u1b5), hardstanding (u1b6 developed land/sealed surface), and modified grassland (g4).
- 1.4 The site is surrounded by fields, scattered woodland, treelines and hedges, with minor roads and rural residential homes and gardens. In the wider surrounds are residential farms, agricultural land, waterways off the river Adur, minor and major roads and towns. There are no international statutory designated sites within 12km of the site boundary. The site is approximately 0.6km to the north of the South Downs National Park, there are no other designated sites within 2km of the site boundary.
- 1.5 The National Grid Reference for the centre of the site is TQ21631452. The survey area extended over approximately 7.4 hectares (ha).

Description of Development

- 1.6 It is understood that the development proposals involve the construction of storage units at the site.

2. Methodology

Establishing the Baseline Habitat

- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 2km radius of the site.
- 2.2 Phlorum carried out a site walkover visit on 27th January 2025 to assess the baseline habitat conditions of the site, following the guidance set by the Joint Nature Conservation Committee, handbook for Phase 1 surveys (JNCC 2010).
- 2.3 However, the description of the site habitats has used the code/referencing from The UK Habitat Classification User Manual Version 2.0 (UKHab 2023). UKHab uses primary habitat codes, either on their own or followed by one or more secondary codes. Each individual code is separated by a space. Habitats were described and mapped (Figure 1: Appendix A).

Calculating Biodiversity Net Gain/Loss

- 2.4 A Biodiversity Net Gain (BNG) assessment involves making a comparison between the biodiversity value of the present habitat, prior to development (i.e. the baseline) and the predicted biodiversity value of the habitats following completion of the development (i.e. post-development). The comparison is made in terms of 'biodiversity units', with a 'biodiversity metric' providing the mechanism to allow biodiversity values to be calculated and compared.
- 2.5 If the baseline habitat has recently been disturbed/cleared then the baseline is taken as 30th January 2020.
- 2.6 The calculation of Biodiversity Net Gain (BNG) was undertaken using The Statutory Biodiversity Metric (DEFRA 2023). The metric uses site habitats, as areas and linear lengths, to calculate a score for the site. Each habitat is scored according to its relative biodiversity value. This value is then adjusted depending on various factors, to calculate the 'biodiversity units' for each habitat.

Baseline Calculation

- 2.7 Site baseline habitats are assessed based on the following:
 -  Terrestrial areas;
 -  Terrestrial linear lengths; and
 -  Aquatic linear lengths.
- 2.8 The baseline habitat map has been used to calculate the individual parcels of habitats on the site, such as terrestrial areas (e.g. woodland, grassland), terrestrial lengths (e.g. hedgerows) and aquatic lengths (e.g. streams, rivers). Each area is measured in *hectares* and each linear feature in *kilometres*.

- 2.9 The Statutory Biodiversity Metric calculator requires habitats present on site to be described using the UKHabs Classification System. As a result, the calculator in the technical data section includes a tool to translate Phase 1 habitats into UKHabs habitats.
- 2.10 Once the UKHabs habitat names, and areas/lengths have been measured the parcels need to be assessed against the following criteria:
-  Habitat Distinctiveness – The calculator creates an automated score based on the type of habitat present. Highly diverse habitats, particularly those habitats of Principal Importance under the NERC Act (2006) or Annex 1 habitats in the Habitats Directive (1992) score 'high', whilst sites with low diversity such as arable crops have 'low' scores.
 -  Habitat Condition – An assessment of the quality of the habitat parcel assessed during the baseline surveys.
 -  Strategic Significance – An assessment based on the information set out in local plans or policies.
- 2.11 The calculator realises the importance of individual trees but there is no UKHabs habitat for these in the area calculation. As a result, the 'Street tree helper', which allows numbers of trees to be converted to an area in hectares is used, regardless of if the tree is a street tree or isolated tree in another habitat. Trees are categorised as 'small', 'medium', 'large' or 'very large'. The condition of the tree can then be assessed as 'poor', 'moderate' or 'good'.
- 2.12 For the purpose of this assessment the size of the trees has been assessed during the site walkover.

Post Development Calculation

- 2.13 The post development areas are calculated by initially assessing the areas/length of habitats retained, enhanced, and created plus any offsite areas created or enhanced.
- 2.14 A 'Habitat Condition' and 'Strategic Significance' assessment are carried out on the post-development habitats. Where habitats have been created or enhanced, additional factors are considered, such as time taken for each of these habitats to reach target condition (temporal multiplier) and the difficulty of recreating these habitats (difficulty multiplier).
- 2.15 The baseline biodiversity score and post-development score are then calculated and compared the biodiversity impact loss or gain is calculated for each habitat (e.g. terrestrial habitat, terrestrial linear and /or linear aquatic habitat).
- 2.16 If needed offsite enhancement and/or creation of habitats can be carried out and assessed.
- 2.17 The site, and if needed the offsite enhancement, are then managed for at least 30 years via legal agreements, such as planning obligations or conservation covenants.

Caveats

- 2.18 The BNG calculates habitats and only provide a score to represent the biodiversity on site. As a result, compensation and mitigation should be designed using appropriate expertise and common sense.
- 2.19 As only habitats are calculated an increase in biodiversity due to increase in fauna (e.g. birds, bats, insects, reptiles, amphibians, or other mammals) is not included. The creation of bird/bat/insect boxes, log piles, and/or hibernacula's can significantly enhance the ecosystems on a site, but these enhancement are not calculated by the BNG calculator. The BNG calculator is a good guide to help increase biodiversity but habitats need both flora (plants) and fauna (animals) enhanced to ensure healthy and sustainable ecosystems.
- 2.20 The existing levels of protection provided to certain habitats or protected species are not changed by this calculator. The impact on protected species are not considered by the calculator, and must be assessed separately.
- 2.21 In nature the boundaries between ecological habitats are not usually an easily defined line, unless human impact such a hard surface (e.g. buildings/roads), fences, ploughing, and/or felling has occurred. As a result, the habitat areas used are based on best judgement and therefore are subjective.
- 2.22 The calculator requires area measurements in *hectares* and linear measurements in *kilometres*, which for small sites can result in smaller areas/lengths not being recorded when only 2 decimals places area used.
- 2.23 As isolated trees are measured separately the overall area of all the habitat parcels can be greater than the actual site area.
- 2.24 The calculator cannot take account of all site-specific features and circumstances that may affect the true value of certain habitats or dictate the nature of habitat creation and enhancement. Such features and circumstances may make it impossible to satisfy trading rules for medium and high distinctiveness habitats, even where a clear net gain for biodiversity is being delivered. **Under The Statutory Biodiversity Metric meeting the Trading Rules is a requirement and irreplaceable habitats cannot be lost on site.**
- 2.25 Whilst the calculator provides a valuable guide as to how a development will affect biodiversity, it should be considered as a guide to be used in combination with pragmatic and knowledge-based judgement when reaching conclusions as to how effective biodiversity enhancement will be delivered.

3. Biodiversity Net Gain Assessment

Existing Habitats

- 3.1 The existing habitats identified on site during the site walkover were buildings (u1b5), other developed sealed surface (u1b6), bare ground (g510) and modified grassland (g4). The buildings on site were two large poly tunnels, a metal shipping container and a partially collapsed shed. The area of bare ground that was covered by a large scrap metal pile. The habitat map can be seen in Appendix A.
- 3.2 The landscape scheme can be seen in Appendix B.
- 3.3 Where relevant, the following habitats will be referred to using the UK Habitat Classification¹ to help inform the Biodiversity Net Gain (BNG) for the site.
- 3.4 The following habitats will be lost:
-  **Buildings:** The Poly tunnels will be removed to make way for the new building footprints.
 -  **Modified grassland:** An extent of the grassland will be lost.
- 3.5 The following habitats will be retained:
-  **Buildings:** the small buildings on site will be retained (shipping container and wooden shed)
 -  **Bare ground:** the area of bare ground covered in scrap metal will be retained.
 -  **Hardstanding:** the existing hardstanding access track will be retained.
 -  **Modified Grassland:** A large extent of the grassland will be retained.
- 3.6 The following habitats will be enhanced:
-  **Modified grassland:** An area in the northeast corner of the retained grassland will be improved in condition to create **other neutral grassland**, through wildflower seeding. The grassland area will be sown with a blend of seed mixtures such as Emorsgate's EM8 meadow mixture for wetlands and EG8 meadow grass mixture for wet soils or similar. The grassland areas along the western boundary will be sown with a mixture of Emorsgate's EH1 hedgerow mixture or similar.
- 3.7 The following habitats will be created:
-  **Buildings:** New buildings will be created.
 -  **Sealed surface:** An access road will be created.
 -  **Modified grassland:** Grasscrete permeable grid paving will be created in a courtyard area in the centre of the new buildings. Grasscrete to be sown with Emorsgate's EG22 strong grass lawn mix or similar.

¹ UKHab Ltd (2023) The UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)

-  **Ground Level Planters:** New herbaceous shrubs will be planted in beds within the courtyard area. Species to include a mix of native flowering herbs with known benefit to wildlife.

Headline Results

3.8 The headline results, including total unit and % change are shown in Table 1 below.

Table 1: Results

	Habitat Area Units (Terrestrial area)	Habitat Length Units (Terrestrial linear length)	Aquatic Length Units (Aquatic linear length)
On-site Baseline	3.66	na	na
On-site post- intervention	4.11	na	na
Total net unit change	+ 0.46	na	na
Total net % change	+ 12.50%	na	na

3.9 The Trading Rules requirement of the BNG assessment are satisfied for the site.

Results Summary

3.10 The existing area habitats on the site are considered by the Biodiversity Net Gain assessment to have a value of **3.66 units**. The post-development area habitats are considered by the Biodiversity Net Gain Assessment to have a value of **4.11 units**. This is a **+0.46 net change** in habitat units which equates to a **12.50% net gain**.

3.11 This reflects the replacement of the existing buildings with new smaller buildings, retention of existing hardstanding and creation of a new hardstanding track, and retention and enhancement of areas of the existing modified grassland to create other neutral grassland and creation of new grassland around the site.

3.12 There are no linear/aquatic habitat features on the site pre- or post-development.

3.13 Trading Rules for the site are satisfied.

4. Discussion

- 4.1 A Biodiversity Net Gain Assessment has been carried out for the proposed development of Land at Aranjays, New Barn Lane. The site comprised of buildings (u1b5), hardstanding (u1b6 developed land/sealed surface), and modified grassland (g4).
- 4.2 It is understood that development proposals involve the construction of storage units at the site.
- 4.3 An overall net gain of 12.50% in habitat units from the existing baseline has been calculated. The net gain reflects the replacement of buildings with a new building with a smaller total footprint than the existing buildings, retention and enhancement of modified grassland to other neutral grassland, and creation of other neutral grassland.
- 4.4 Trading Rule requirement of the BNG assessment are satisfied, as the low distinctiveness modified grassland that is being lost is replaced by a medium distinctiveness other neutral grassland.
- 4.5 There may also be significant gains for ecology on the site that are not captured by the BNG Assessment, such as species-specific enhancements including bird and bat boxes.
- 4.6 A Habitat Management and Monitoring Plan (HMMP) may be required to demonstrate how the post development habitat will be maintained, who is responsible for creating and enhancing it, and who is responsible for its maintenance, management and monitoring over a 30-year period.

5. Conclusions and Recommendations

Conclusions

- 5.1 A Biodiversity Net Gain Assessment has been carried out for the proposed development of the Land at Aranjays, New Barn Lane. An overall net gain of 12.50% in habitat units from the existing baseline has been calculated.
- 5.2 It should be noted that the BNG assessment does not capture other methods of ecological enhancement such as the inclusion of bat and bird boxes.

6. References

- 🌱 Baker J., Hoskins R. and Butterworth T. (2019). Biodiversity Net Gain. Good practice principles for development: A practical guide. Ciria, London. Baker J., Hoskins R. and Butterworth T. (2019). Biodiversity Net Gain. Good practice principles for development: Case studies. Ciria, London.
- 🌱 British Standards Institute (2013). 24040:2013. *Biodiversity-Code of Practice for Planning and Development*. Standards Policy & Strategy Committee. Milton Keynes: BSI.
- 🌱 CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal Second Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- 🌱 CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
- 🌱 DEFRA (2023) *The Statutory Biodiversity Metric. Calculation tool*. www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides.
- 🌱 DEFRA (2024) *The Statutory Biodiversity Metric. User guide*. www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides.
- 🌱 Department for Communities and Local Government (2019) *National Planning Policy Framework (NPPF)* (on-line). Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf
- 🌱 Emorsgate
https://wildseed.co.uk/?s=wet%20soils%20&jet_ajax_search_settings=%7B%22search_source%22%3A%22product%22%2C%22sentence%22%3Atrue%2C%22search_in_taxonomy%22%3Atrue%2C%22search_in_taxonomy_source%22%3A%5B%22product_cat%22%2C%22product_tag%22%5D%7D&post_type=product
- 🌱 Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - A technique for Environmental Audit*. JNCC, Peterborough.
- 🌱 UKHab Ltd (2023). *UK Habitat Classification Version 2.0*. (at <https://www.ukhab.org>).

Figures and Appendices

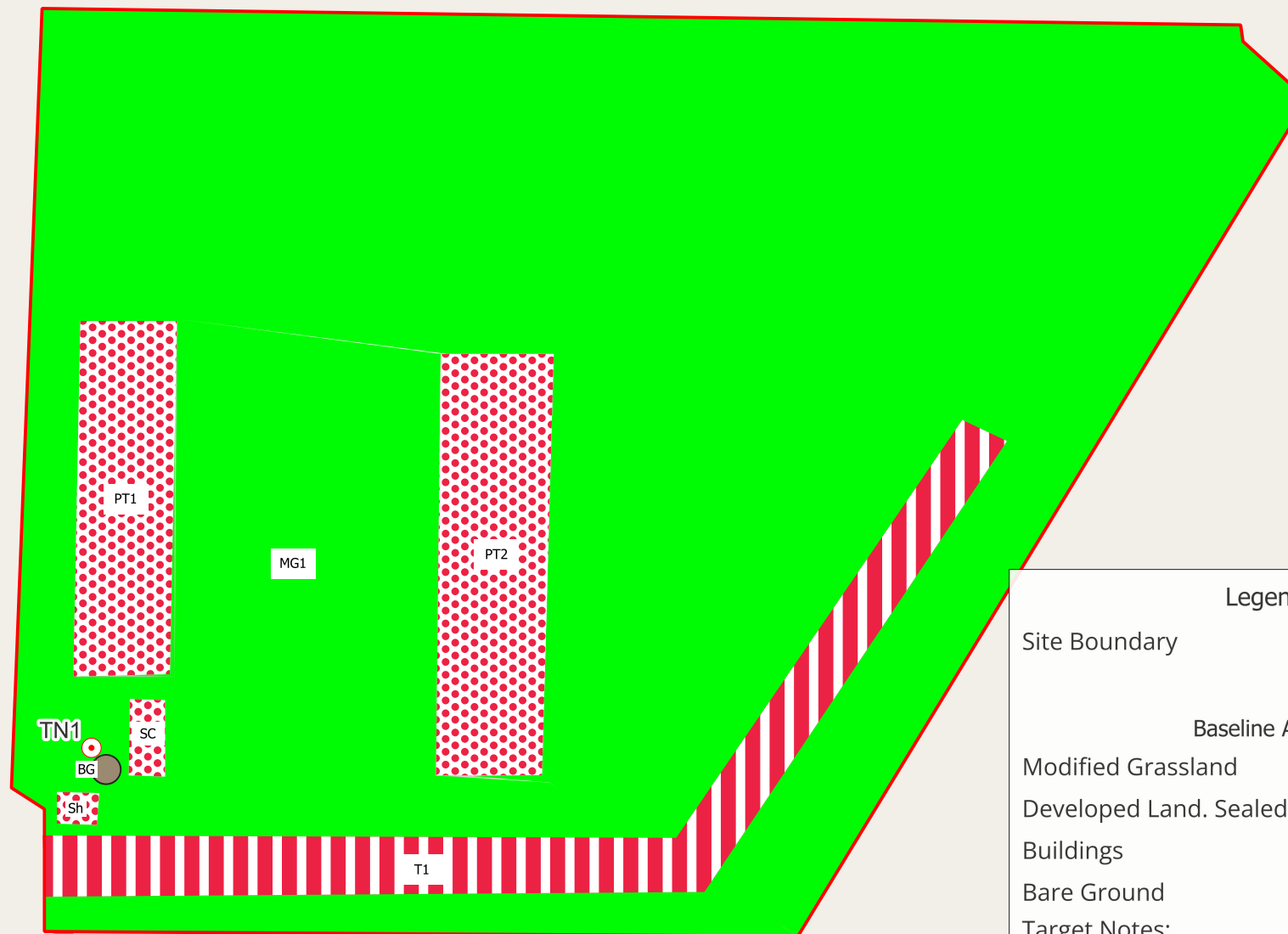
Appendix A

Habitat Map



Newbarn Lane

Newbarn Lane



Legend

Site Boundary



Baseline Areas

Modified Grassland



Developed Land, Sealed Surface



Buildings



Bare Ground



Target Notes:

TN1- Scrap Metal Pile (on bare ground)



Figure 1: Land at Aranjays/Greenacres Habitat Map

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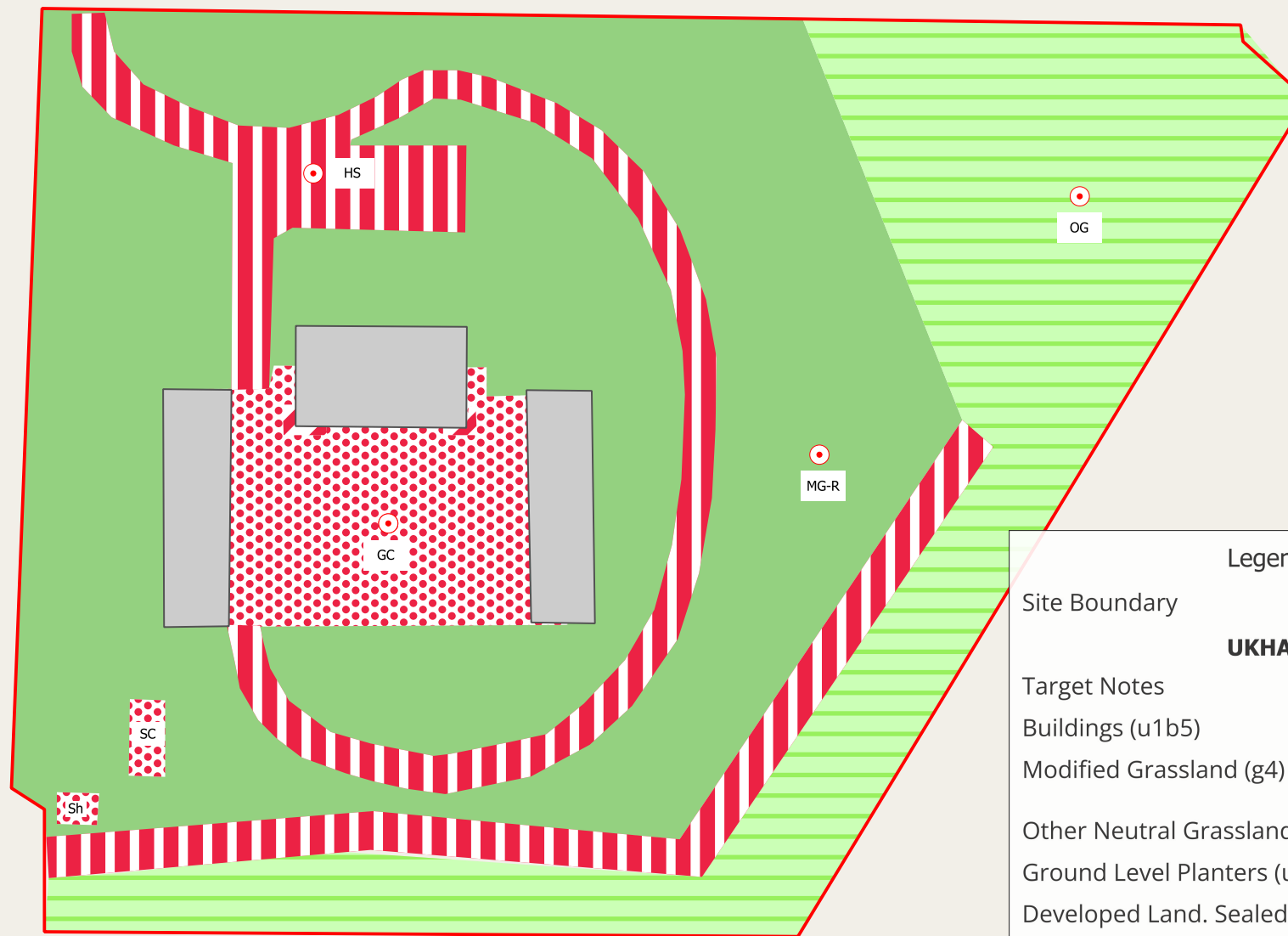
Appendix B

Post Development Landscape Plan



Newbarn Lane

Newbarn Lane



Legend

Site Boundary	
UKHAB	
Target Notes	
Buildings (u1b5)	
Modified Grassland (g4)	
Other Neutral Grassland (G3)	
Ground Level Planters (u1 846)	
Developed Land. Sealed Surface (u1b6)	
Other Buildings	



Figure 1: Land at Aranjays/Greenacres Habitat Map

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