



Our Ref: JBA 11/103 ECO2a SR Rev A

19th October 2022

Revision A – 13th December 2022 (to include Urban Greening Factor)

On behalf of Harrison Varma Projects Ltd.

Indicative Biodiversity Net Gain Calculation and Urban Greening Factor for Land at Mansfield Bowling Club, Croftdown Road, Camden, London, NW5 1EP

James Blake Associates Ltd. (JBA) was commissioned by Harrison Varma Projects Ltd. to provide a biodiversity net gain calculation and Urban Greening Factor (UGF) for the proposed development on land at Mansfield Bowling Club, Croftdown Road, Camden, London, NW5 1EP (London Borough of Camden).

As the development layout and landscaping is not yet finalise, this statement is an indication only and explains how the net gain calculation was carried out, the assumptions made and the conclusions from the calculation. Only habitats/linear features currently and proposed within the site boundary have been included within the calculations. The Landscape Illustrative Plan (Andy Sturgeon Design, 2022) is provided in Appendix A.

Background

A biodiversity net gain calculation has been carried out using Defra Biodiversity Metric 3.1 (updated July 2021). For more information on the metric, please see [here](#).

Defra's Biodiversity Metric 3.1 provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change. The metric encompasses both area (e.g. grasslands) and linear habitats (such as hedgerows, rivers and streams). Note that 'material' enhancements for species, such as bat/bird boxes, reptile hibernacula, hedgehog 'highways' etc. cannot currently be factored into the calculation.

Within Policy G5 Urban greening of 'The Spatial Development Strategy for Greater London' (Greater London Authority, March 2021), it states; 'Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.' And 'Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development'.

The habitats and linear features currently present within the site boundary are used to calculate the baseline biodiversity units; the percentage gain that the proposed development can potentially deliver is estimated using the Landscape Illustrative Plan for the development and assumptions made by the assessor (Appendix A).

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At present, national policy states '*opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity*' (NPPF, 2021). The figure of 10% net gain is sometimes regarded as the minimum but this has now been highlighted as mandatory with the emerging Environment Bill from November 2023.

Methodology and Rationale

The baseline figures for the metric calculation were based on the Preliminary Ecological Appraisal (PEA) survey undertaken by JBA in 2022. The area measurement for each of the baseline habitat types was made using Defra's MAGIC map: for more information about MAGIC, please see [here](#).

Baseline habitats consist of hardstanding and sections of poor semi-improved grassland. Other habitats present, mainly around the boundaries, are ruderal vegetation and bramble scrub. No hedgerows are present within the site boundary.

The strategic significance of the location was checked against the 'Local Plan' of Camden. The location did not appear to be in or near to a locality mentioned in the Strategy. However, this category can be amended accordingly if required.

The areas for habitat to be retained and/or created were taken from the Landscape Illustrative Plan prepared by Andy Sturgeon Design (2022) (Appendix A).

The UGF table from '*The Spatial Development Strategy for Greater London*' (Greater London Authority, March 2021) detailing the 'Surface Cover Type' and the corresponding 'Factor' is shown in Appendix B. Some proposed habitats do not directly translate into the UGF table and therefore 'best fit' has been selected, for example, allotments are proposed and have been classified as 'flower-rich perennial planting'.

The development will provide new habitats in the various gardens and other open green spaces. It is recommended that areas (0.0545ha) are to be seeded with wildflower grassland mix (or similar) and 0.0409 of native buffer mix (or similar) is incorporated into the landscaping to mitigate the loss of existing bramble scrub. Approximately 129 trees are proposed which will also add biodiversity value to the scheme. Native plant species should be used to create the wildflower, and any other planting (where possible).

It is assumed that an element of native species-rich and non-native hedgerow planning will be proposed throughout the development. As no hedgerows are existing within the site boundary, any proposed hedgerow will provide a biodiversity net gain of 100%.

Furthermore, the large building proposed at the southern section of the site will have an intensive green roof.

In terms of habitat creation, landscape planting schemes do not always translate directly into ecologically relevant habitat types, so the best fit for the landscape plans was selected from the draw-down menu in the metric.

A value of 'moderate' has been ascribed to the potential condition that could be achieved by wildflower grassland (categorised as 'other neutral grassland' in the metric). 'Other neutral grassland' is described in UKHab (2020) classification as species-rich, semi-improved neutral grassland. A condition score of 'moderate' has been ascribed as there is likely to be minor differences between the created grassland and what is described in the relevant habitat classification for priority grassland habitat.

Biodiversity Net Gain Evaluation

The overall score is a potential gain of 522.71% for habitat units and a 100% gain for hedgerows/linear features. It is expected that at the detailed design stage that further net gain is achievable through the incorporation of various enhancement measures, such as bird and bat boxes.

It is worth noting that these gains are purely from habitats/hedgerows and therefore 'material' enhancements are not included in this calculation. Although, it is recommended the proposed development includes the following enhancements;

- Bird and bat boxes to be erected onto new buildings (where possible)
- Hedgehog gaps (13cm x 13cm) to be created in fences to ensure small mammal movement is maintained throughout the site.
- In addition, hibernacula to benefit reptiles, amphibians etc.

Note that the final location of enhancements should be determined during construction by an Ecological Clerk of Works (ECoW).

UGF Results

Using the UGF table from '*The Spatial Development Strategy for Greater London*' (Greater London Authority, March 2021), the site will gain a UGF score of 0.44; therefore, meeting the recommended score of 0.4 for developments that are predominately residential.

The UGF site-specific calculations can be found in Appendix C.

Conclusions

Based on the Landscape Illustrative Plan and assessor assumptions, it is concluded that the development can potentially deliver an overall gain of 522.71% for habitat units and a 100% gain for hedgerows/linear features. The development is expected to deliver more of a gain when 'material' enhancements are included such as bird and bat boxes.

The proposed development will also gain an UGF score of 0.44; therefore, meeting the recommended score of 0.4 for developments that are predominately residential.

Landscape and ecological management plans may be required to secure the potential benefits for biodiversity in perpetuity.

Yours sincerely,

Sam Rigg ACIEEM

Ecologist

James Blake Associates Ltd.

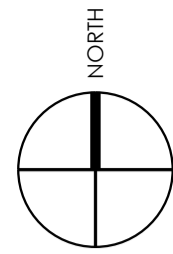
References

Andy Sturgeon Design (2022) *Landscape Illustrative Plan of Mansfield Bowling Club*. On behalf of Harrison Varma. Drawing number: _P_XX_110

James Blake Associates Ltd. (2022) *Preliminary Ecological Appraisal of Land at Mansfield Bowling Club, Camden, London*. On behalf of Harrison Varma Projects Ltd.

Greater London Authority (March 2021) *The Spatial Development Strategy for Greater London*

Appendix A. Landscape Illustrative Plan (Andy Sturgeon Design, 2022)



GENERAL NOTES.

This drawing remains the copyright of Andy Sturgeon Garden Design Limited. All dimensions to be checked prior to commencement of any works, and/or preparation of any shop drawings on site. Any dimensional discrepancies and alterations to be referred to the designer.

DO NOT SCALE FROM THIS DRAWING.

- Key
- Proposed Lawn
 - Proposed shrub planting
 - Proposed green/sedum roof
 - Proposed bike racks
 - Proposed feature benching
 - Proposed allotment
 - Hedge Proposed
 - Tree Existing
 - Tree Proposed

P05	07.12.22	Updated Parking layout, pavilion, and increased tree numbers	EE	EE	AS
P04	26.08.22	Issued for Coordination	EC	EE	AS
P03	23.08.22	Issued for Coordination	EC	EE	AS
P02	09.08.22	Issued for Coordination	EC	EE	AS
P01	02.08.22	Issued for Coordination	EC	EE	AS



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project no. drawing no. issue
658 _P_XX_110 **P05**

client Harrison Varna
project Mansfield Bowling Club

drawing Landscape Illustrative Plan

scale 1:250@A1
1:500@A3

Appendix B. The UGF table '*The Spatial Development Strategy for Greater London*' (Greater London Authority, March 2021)

Table 8.2 - Urban Greening Factors

Surface Cover Type	Factor
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm – see livingroofs.org for descriptions. ^A	0.8
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree – see Trees in Hard Landscapes for overview. ^B	0.8
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014. ^C	0.7
Flower-rich perennial planting – see RHS perennial plants for guidance. ^D	0.7
Rain gardens and other vegetated sustainable drainage elements – See CIRIA for case-studies. ^E	0.7
Hedges (line of mature shrubs one or two shrubs wide) – see RHS for guidance. ^F	0.6
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6
Green wall –modular system or climbers rooted in soil – see NBS Guide to Façade Greening for overview. ^G	0.6
Groundcover planting – see RHS Groundcover Plants for overview. ^H	0.5
Amenity grassland (species-poor, regularly mown lawn).	0.4
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014. ^I	0.3
Water features (chlorinated) or unplanted detention basins.	0.2
Permeable paving – see CIRIA for overview. ^J	0.1
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0



Appendix C. The UGF Site-Specific Calculations using ‘*The Spatial Development Strategy for Greater London*’ (Greater London Authority, March 2021)

Surface Cover Type	Factor (A)	Area (m2) (B)	Total (A x B)
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	468	468
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm	0.8	1190	952
Flower-rich perennial planting.	0.7	213	149.1
Hedges (line of mature shrubs one or two shrubs wide).	0.6	130	78
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree	0.8	200	160
Groundcover planting.	0.5	1096	548
Amenity grassland (species-poor, regularly mown lawn).	0.4	1128	451.2
Permeable paving	0.1	1500	150
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	788	0
(A x B) =			2956.3 (C)
C / Site Area (6713) =			0.44