

Biodiversity Net Gain Assessment

Land at Kenyon Lane, Manchester, M40 5FH

Jigsaw Group Homes

Revision C – October 2023



ecology

SITE NAME			
Land at Kenyon Lane, Manchester, M40 5FH			
GRID REFERENCE		DOCUMENT REFERENCE	
SD8767201221		LM0117]BNGA[Land at Kenyon Lane]Rev C	
SITE DESIGNATION		LOCAL AUTHORITY	
None		Manchester City Council	
	NAME	QUALIFICATIONS	DATE
PRINCIPAL AUTHOR	Louisa Molloy	Consultant Ecologist; BSc (Hons)	14/07/2023
REVIEWED BY	Elizabeth McBride	Consultant Ecologist; BSc (Hons); MCIEEM	21/07/2023
REVISION HISTORY			
REVISION	DATE	AUTHOR	DESCRIPTION
A	July 2023	LM	Original based on Schedules and Site Plan – Drawing No. 105 Rev. 4
B	September 2023	LM	Update due to revised site layout shown on Schedules and Site Plan – Drawing No.105 Rev. 8
C	October 2023	LM	Update due to revised redline boundary shown on KL-BTP-00-LP-DR-A-3785_100 Rev. 1

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APPENDIX A

- A.1 Pre-Intervention Habitat Plan
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A SUMMARY

- 1 LM Ecology was commissioned by Jigsaw Homes Group in April 2023 to carry out a Biodiversity Net Gain Assessment (BNGA) of a parcel of land at Kenyon Lane, Manchester, M40 5FH.
- 2 The BNGA was commissioned to support plans to develop the site for housing, which will comprise nine new dwellings with associated hard and soft landscaping.
- 3 The BNGA was carried out using the most recent biodiversity metric - DEFRA Metric 4.0.
- 4 The purpose of this report is as a supporting document to the DEFRA Metric 4.0 worksheet, and it provides an overview of the pre- and post-development values for the site and how a Biodiversity Net Gain (BNG) can be achieved on-site, if applicable.
- 5 The proposal plan that this BNGA is based on is as follows:
 - *Schedules and Site Plan KL-BTP-00-SP-DR-A-3785_105.8 Revision 8* by BTP Architects dated 15th June 2021 and issued to LM Ecology on 30th August 2023.
- 6 In summary, the baseline (pre-intervention) value of the site is 1.73 habitat units and 0.00 hedgerow units. The proposals will result in a post-intervention value of 0.32 habitat units and 0.00 hedgerow units, which is an overall net loss of -81.70% and 0% respectively. A total of 1.59 habitat units will be needed to off-set this loss and achieve the minimum 10% BNG.
- 7 Due to the size of the site and the extent of the housing proposed, there is no scope to achieve a minimum 10% biodiversity net gain on-site. There is the option to explore enhancement of the woodland copse outside of the site boundary, through the implementation of a woodland management plan to reduce the amount of off-site off-setting required. However, even with this in place, there would still be an overall net loss, which will need to be off-set off-site via an appropriate mechanism.
- 8 The results are valid for up to two years from the date of publication (October 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

B INTRODUCTION

9 LM Ecology was commissioned by Jigsaw Homes Group in April 2023 to carry out a Biodiversity Net Gain Assessment (BNGA) of a parcel of land at Kenyon Lane, Manchester, M40 5FH (SD8767201221).

10 The site covers an area of 0.24ha consisting of amenity grassland and broadleaved woodland.

11 The assessment was commissioned to support plans to develop the site for housing, which will comprise ten new dwellings with associated hard and soft landscaping. Proposed soft landscaping includes the creation of vegetated gardens to the front and rear of the new dwellings, and narrow verges of amenity grassland surrounding a new section of hard surfaced road to the south of the site. This BNGA is based on the landscaping shown on Schedules and Site Plan KL-BTP-00-SP-DR-A-3785_105.8 Revision 8 by BTP Architects dated 15th June 2021 and issued to LM Ecology on 30th August 2023.

12 The purpose of this report is to:

- Provide baseline data to classify the type and strategic significance of the habitats prior to development.
- Ensure that the baseline habitat conditions are classified in a robust and consistent manner, so that classification is based on the best data available at the time of the assessment.
- Clearly identify data collection methods and any limitations.
- Calculate the post-development value of the site based on the development proposals.

13 The results are valid for up to two years from the date of publication (October 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

C PLANNING POLICY AND LEGISLATION

- 14 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they should be applied. Chapter 15 states that developers must identify and pursue opportunities for securing measurable net gains for biodiversity.
- 15 Under the Environment Act 2021, all planning permissions granted in England (with a few exceptions) will have to deliver at least 10% Biodiversity Net Gain. This will become legally enforceable following a transition period.

D METHODOLOGY

D.1 Desk Study

17 A desk study was carried out in July 2023 as part of the Biodiversity Net Gain Assessment. The following information was reviewed:

- Multi-Agency Geographic Information for the Countryside (MAGIC) online database.
- Greater Manchester Combined Authority (GMCA) MappingGM online database.
- Manchester' Local Development Framework Core Strategy Development Plan Document 2012 to 2027
- GMCA Biodiversity Net Gain Guidance for Greater Manchester February 2021

D.2 UK Habitat Survey

18 The site survey was carried out by Louisa Molloy (Consultant Ecologist, BSc (Hons)) and Elizabeth McBride (Consultant Ecologist, BSc (Hons), MCIEEM) on 22nd June 2023, in accordance with the UK Habitat Classification (UKHab) methodology (Butcher, et al., 2020). The habitats within the boundary of the survey site were broadly mapped with the principal habitat types and, where applicable, the dominant plant species identified within each habitat type.

D.3 DEFRA Metric 4.0

19 The Biodiversity Net Gain Assessment was carried out using the DEFRA Metric 4.0.

20 UK Habitat Survey habitats recorded from the site were input into the DEFRA Metric 4.0 worksheet and the baseline (or pre-intervention) biodiversity unit value of each habitat parcel was calculated.

21 The proposed development habitats were mapped and assigned a UK Habitat Survey type and then input into the DEFRA Metric 4.0 worksheet. The biodiversity unit values for the proposed development (or post-intervention) were then calculated using the same method.

22 The change in biodiversity value is calculated by subtracting the pre-intervention values from the post-intervention values to give final values from which it can be determined if the scheme delivers a biodiversity net gain or loss.

23 Metric calculations were undertaken by Louisa Molloy.

24 The assessment is based on CIEEMs Good Practice Principles (Baker, et al., 2019) and Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021).

25 Post-intervention habitats were mapped from the following proposal plan provided by the client:

- *Schedules and Site Plan KL-BTP-00-SP-DR-A-3785_105.8 Revision 8* by BTP Architects dated 15th June 2021 and issued to LM Ecology on 30th August 2023.

- 26 The full results of the BNG assessment are provided in the supplied DEFRA Metric 4.0 worksheet. Pre-and post-intervention habitat plans are included in Appendix A as figures A.1 and A.2, respectively.
- 27 The strategic significance of the habitats was determined via the use of the GMCA MappingGM layer **Greater Manchester Local Nature Recovery Strategy (LNRS) Opportunities, 2021.**
- 28 Habitat areas and lengths, both pre-and post-intervention, have been measured using QGIS. Whilst every effort has been made to map the habitats as precisely as possible, there may be very minor errors in accuracy.
- 29 Proposed individual trees in private gardens have not been included in the post-intervention habitat calculation as per the Biodiversity Metric 4.0 User Guide (Natural England, 2023), which states that *“Where private gardens are created, any tree planting within the created garden should not be included within post-development sheets of the metric. The habitat type ‘Urban – Vegetated garden’ should be used.”* Proposed individual trees in open public spaces have been included in the post-intervention calculations.

E ON-SITE PRE-INTERVENTION HABITATS

E.1 Habitats

E.1.1 Modified grassland

31 Modified grassland in the form of closely and regularly mown species poor amenity grassland is one of the main site habitats covering an area of 0.2044ha.

32 The grassland passed 6 of the 7 condition criteria, including essential criterion A, and has been assessed as being in good condition.

33 This habitat has a value of 1.41 habitat units.

E.1.2 Other woodland; broadleaved

34 A copse of broadleaf woodland is the other habitat within the site. The part of the woodland copse within the site boundary has an area of 0.0352ha.

35 The woodland scored 29 out of a possible 39 in the condition assessment and has been assessed as being in moderate condition.

36 This habitat has a value of 0.32 habitat units.

E.2 Strategic Significance

37 The site has been identified in a local strategy as an opportunity for tree planting. Therefore, 'Formally identified in local strategy' has been assigned.

E.3 Pre-intervention Biodiversity Value Calculations

38 Based on the data input into the DEFRA Metric 4.0 worksheet, the pre-intervention habitats have a total value of:

- 1.73 habitat units; and
- 0.00 hedgerow units.

F ON-SITE POST-INTERVENTION HABITATS

F.1 Proposals

39 The proposals will involve construction of nine new dwellings with associated hard and soft landscaping. Proposed soft landscaping includes the creation of vegetated gardens to the front and rear of the new dwellings, an area of public open space with individual urban trees, areas of hardstanding including access roads and paths, and a permeable paving driveway.

F.1.1 Retained Habitats

40 None of the pre-intervention habitats will be retained.

F.1.2 Habitat Creation

41 The proposals will result in the creation of:

- 0.0276ha of modified grassland in moderate condition with a value of 0.11 habitat units.
- 0.0482ha of vegetated garden. A condition assessment does not apply to this habitat type. The habitat will have a value of 0.11 habitat units.
- 0.1521ha of developed land; sealed surface. A condition assessment does not apply to this habitat type and the habitat has a value of 0.00 habitat units.
- 0.0117 of artificial unvegetated; unsealed surface. A condition assessment does not apply to this habitat type and the habitat has a value of 0.00 habitat units.
- Seven small urban trees with a total area of 0.0285ha in moderate condition with a value of 0.10 habitat units.

42 No long-term management of the newly created habitats is proposed due to the landscaping forming the private gardens of the new development, and the modified grassland and individual urban trees likely being regularly mown and managed by the local council or maintenance company. However, a standard planning condition, worded as follows, can ensure that any planting within the proposed development is successful:

- If within a period of five years from the date of planting of any tree/hedge/shrub that tree/hedge/shrub, or any replacement, is removed, uprooted or destroyed or dies, or becomes, in the opinion of the Local Planning Authority seriously damaged or defective, another tree/hedge/shrub of the same species and size as that originally planted shall be planted in the same location as soon as reasonably possible and no later than the first available planting season, unless otherwise agreed in writing by the Local Planning Authority.

F.1.3 Habitat Enhancement

43 At present, no habitat enhancement is proposed. However, there is the possibility to explore enhancement of the woodland copse adjacent to the boundary of the site from moderate to

good condition via the implementation of a woodland management plan, and for this to be counted as off-site adjacent off-setting.

44 Rough calculations show that if the adjacent off-site woodland were enhanced, there would still be a net loss overall, but the total number of units to off-set elsewhere would be reduced.

45 This has not been factored into the post-development calculations, but the possibility is there to explore if necessary.

F.2 Strategic Significance

46 The site has been identified in a local strategy the as an opportunity for tree planting. Therefore, 'Formally identified in local strategy' has been assigned.

F.3 Post-intervention Biodiversity Value Calculations

47 Based on the data inputted into the DEFRA Metric 4.0 worksheet, the post-intervention habitats have a total value of:

- 0.32 habitat units; and
- 0.00 hedgerow units.

G BIODIVERSITY NET GAIN ASSESSMENT RESULTS

48 Completion of the BNGA using the DEFRA Metric 4.0 shows that the proposals will result in a net loss of -1.42 habitat units (-81.70%) and no net change in hedgerow units.

Figure 1 Screen grab of DEFRA Metric 4.0 final results for Land at Kenyon Lane

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		Habitat units	-1.42	
		Hedgerow units	0.00	
		Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)		Habitat units	-81.70%	Total net gain achieved is less than target set A
		Hedgerow units	0.00%	
		Watercourse units	0.00%	
Trading rules satisfied?		No - Check Trading Summaries ▲		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	1.73	1.91	1.59
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00
				Unit requirement met or surpassed ✓
				Unit requirement met or surpassed ✓

49 The landscaping required to achieve this result is shown on the following plan:

- *Schedules and Site Plan KL-BTP-00-SP-DR-A-3785_105.8 Revision 8* by BTP Architects dated 15th June 2021 and issued to LM Ecology on 30th August 2023.

50 The implementation of this landscaping can be secured by a standard planning condition.

51 Due to the size of the site and the extent of the housing proposed, there is no scope to achieve a minimum 10% biodiversity net gain on-site. There is the option to explore enhancement of the woodland copse outside of the site boundary, through the implementation of a woodland management plan to reduce the amount of off-site off-setting required. However, even with this in place, there would still be an overall net loss, which will need to be off-set off-site via an appropriate mechanism.

52 The results are valid for up to two years from the date of publication (October 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

H REFERENCES

Baker, J., Hoskin, R. & Butterworth, T., 2019. *Biodiversity net gain. Good practice principles for development. A practical guide.*, London: Ciria.

Butcher, B. et al., 2020. *The UK Habitat Classification User Manual Version 1.1.* [Online] Available at: <https://ukhab.org/> [Accessed 24 April 2023].

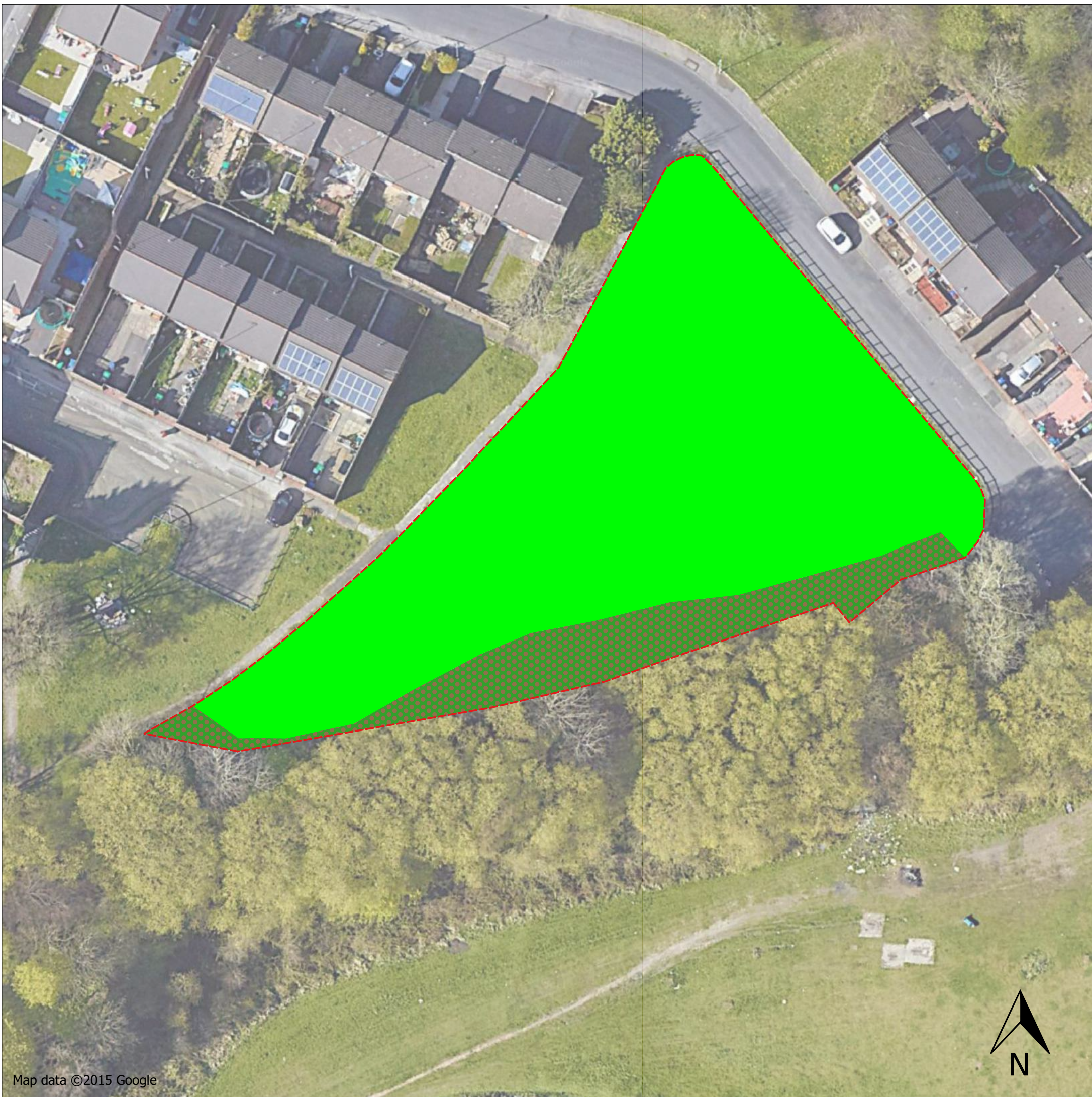
CIEEM, 2021. *Biodiversity Net Gain Report and Audit Templates*, Winchester, UK: Chartered Institute of Ecology and Environmental Management.

Footprint Ecology and WSP, 2021. *GMCA Biodiversity Net Gain Guidance for Greater Manchester February 2021*, Manchester: GMCA.

Manchester City Council, 2012. *Manchester's Local Development Framework Strategy Core Strategy Development Plan Document Adopted 11th July 2012*, Manchester: Manchester City Council.

Natural England, 2023. *The Biodiversity Metric 4.0 User Guide*, s.l.: Natural England.

APPENDIX A



Map data ©2015 Google

Legend

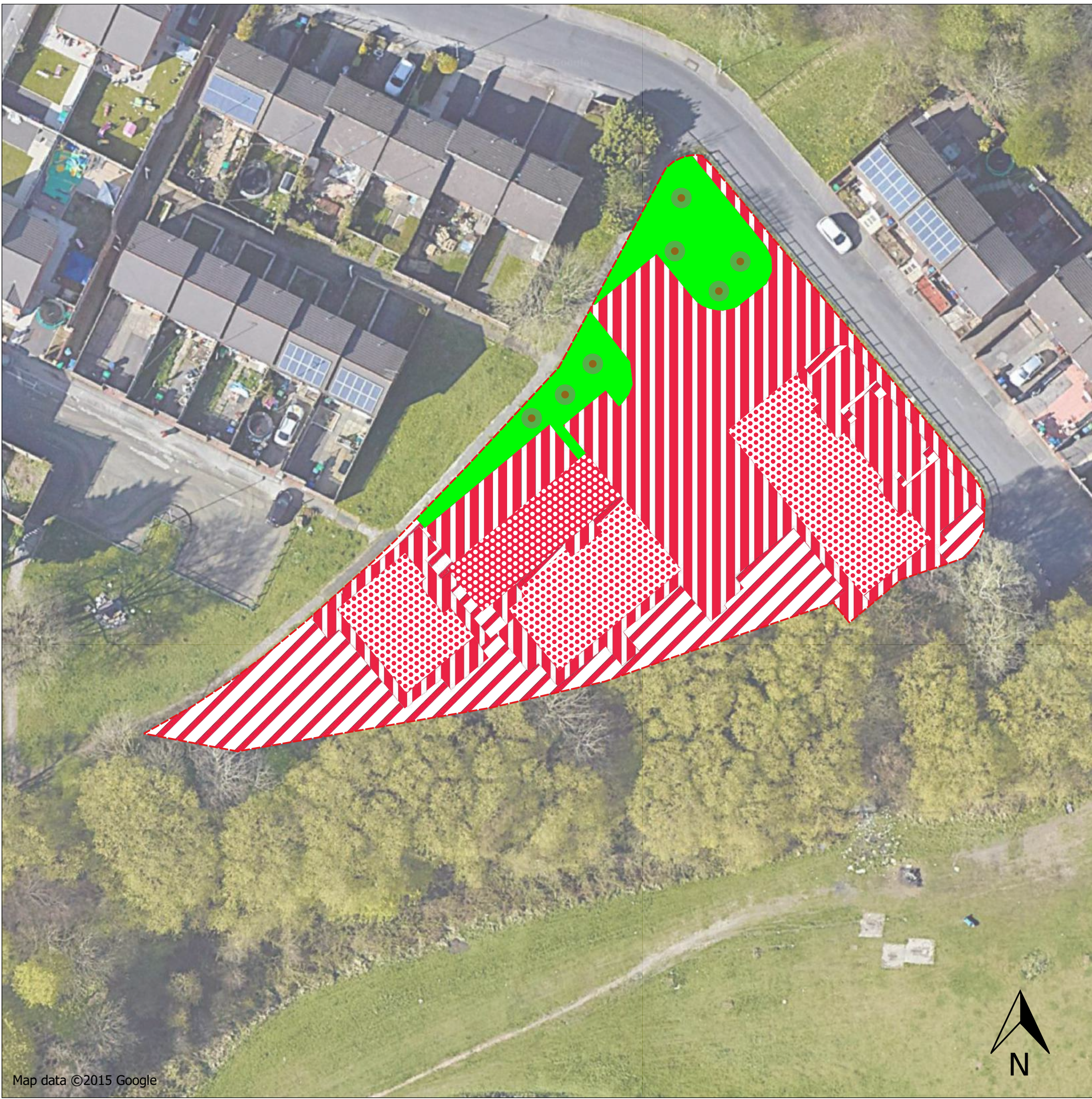
-  Site boundary
-  modified grassland
-  other woodland; broadleaved

Project	Land at Kenyon Lane, Manchester, M40 5FH
Title	A.1 Pre-intervention Habitat Plan
Client	Jigsaw Homes Group
Date	October 2023
Ref	[LM0117]A.1[REV C]PRE[KL]



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Map data ©2015 Google

Legend

-  Site boundary
-  Modified grassland
-  Vegetated garden
-  Developed land; sealed surface
-  Developed land; sealed surface - buildings
-  Artificial unvegetated; unsealed surface - permeable paving
-  Urban tree

Project	Land at Kenyon Lane, Manchester, M40 5FH
Title	A.2 Post-intervention Habitat Plan
Client	Jigsaw Homes Group
Date	October 2023
Ref	[LM0117]A.2[REV C]POST[KL]



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